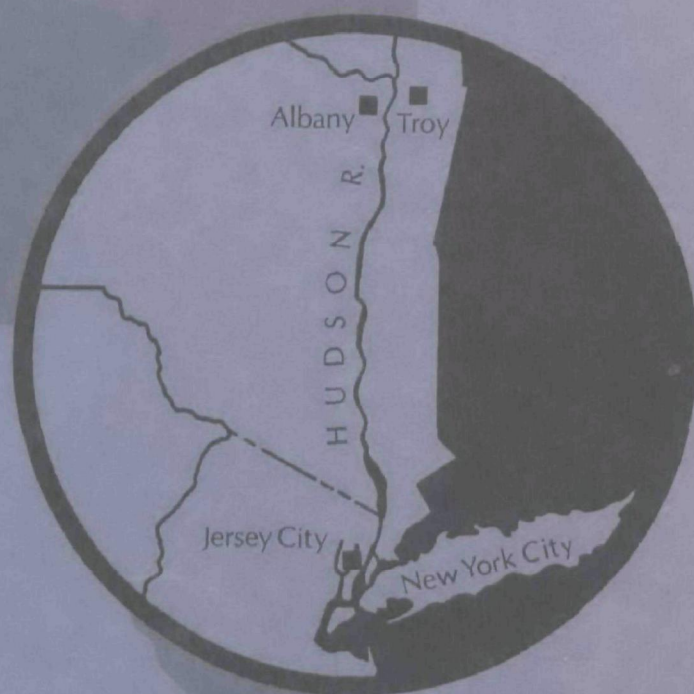


PROCEEDINGS

NEW YORK

SECOND SESSION
September 20-21, 1967



NEW
JERSEY

CONFERENCE

**In the Matter of Pollution of the
Interstate Waters of the Hudson River
and its Tributaries -
New York and New Jersey**

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Second Session of the Conference in the Matter of Pollution of the Interstate Waters of the Hudson River and its Tributaries, held at the Statler-Hilton Hotel, Broadway at 32nd Street, New York, New York, on September 20, 1967, at 9:30 a.m.

PRESIDING:

Mr. Murray Stein, Assistant Commissioner for Enforcement, Federal Water Pollution Control Administration, Department of the Interior.

CONFEREES:

Lester M. Klashman, Regional Director, Federal Water Pollution Control Administration, Northeast Region, Boston, Massachusetts

Dwight F. Metzler, Deputy Commissioner, New York State Health Department, Albany, New York

Dr. Roscoe P. Kandle, Commissioner, New Jersey State Department of Health

Thomas R. Glenn, Jr., Director and Chief Engineer, Interstate Sanitation Commission, New York, N. Y.

PARTICIPANTS:

Hon. Nelson D. Rockefeller, Governor of the
State of New York

Emil Frankel, on behalf of the Honorable Jacob K.
Javits, United States Senator from the State of New York

Robert Green, on behalf of the Honorable Robert
F. Kennedy, United States Senator from the State of New York

Paul De Falco, Jr., Deputy Regional Director,
Northeast Region, Federal Water Pollution Control Administra-
tion, Department of the Interior, Metuchen, New Jersey

Colonel R. T. Batson, District Engineer, New York
District, Corps of Engineers, United States Army

L. McCarren, Region II, General Services Administra-
tion, New York, New York

James E. McShane, District Emergency Planning
Officer, Maritime Administration, United States Department
of Commerce, New York, New York

Dr. Roscoe P. Kandle, Conferee and Commissioner,
New Jersey State Department of Health, Trenton, New Jersey

Eugene E. Hult, Commissioner of Public Works of
the City of New York

Arthur Handley, Associate Director, Division of
Pure Water, New York State Health Department

William K. Shaffer, Chief, Construction Grants
Activities, Division of Pure Waters, State of New York
Department of Health, Albany, New York

PARTICIPANTS (Continued):

Dr. Natale Colosi, Chairman, Interstate Sanitation Commission, Professor of Bacteriology and Public Health at Wagner College, Dean of Polyclinic Medical School

Hon. Whitney North Seymour, Jr., State Senator, 26th District, State of New York

Alan L. Blake, Legislative Representative to Assemblyman Joseph A. Fusco, 86th Assembly District, Bronx County, New York

C. C. Johnson, Assistant Commissioner, Environmental Health Services, New York City Health Department, New York, New York

Dr. John A. Lyons, Jr., Commissioner of Health of Albany County, Chairman of Albany County Sewer Agency

Richard W. Keeler, Chairman of the Rensselaer County Agency for Abatement and Control of Pollution, Troy, New York

Carl Stefanic, on behalf of Dr. H. Jackson Davis, Commissioner of Health, Rensselaer County, New York

James Harding, Commissioner for Division of Pure Water, Westchester County, New York

William Lathrop Rich, Chairman of the Committee for the New York-Montreal Seaway

James F. O'Donnell, on behalf of Hon. Frank D. O'Connor, President of the City Council, City of New York

THOSE IN ATTENDANCE:

Mark Abelson, Regional Coordinator, U. S.
Department of the Interior, Boston, Massachusetts

H. Mat Adams, Chairman, Middlesex Company Sewer
Authority, Sayreville, N. J.

Alexander Aldrich, Executive Director, Hudson
River Valley Commission, Tarrytown, N. Y.

Mary C. Ansbro, Editor, The Soap and Detergent
Association, N. Y. C.

George Apfel, Consulting Engineer, Nebolsine, Toth,
McPhee Association, Fort Lee, N. J.

Arthur Ashendorff, Civil Engineer, New York City
Health Department, N. Y.

Richard P. Aulie, Yale University, New Haven,
Conn.

F. N. Bagley, Superintendent Plant Engineer,
Chevrolet Tarrytown, North Tarrytown, N. Y.

G. E. Balch, Manager, Air & Water Pollution
Control, Allied Chemical Corp., New York, N. Y.

Jeffrey M. Barrie, Graduate Student, New York
University, Flushing, N. Y.

Colonel R. T. Batson, District Engineer, New York
District, U. S. Army Corps of Engineers, New York, N. Y.

H. D. Beier, P. E., Associate, Tippetts-Abbett-
McCarthy-Stratton, N. Y. C.

THOSE IN ATTENDANCE (Continued):

Quentin R. Bennett, New York State Conservation
Dept., Ronkonkoma, N. Y.

Donald S. Benson, Public Relations Director, New
Jersey Department of Health, Trenton, N. J.

Charles F. Bien, Supervisor, Pollution Control,
General Aniline & Film Corp., Linden, N. J.

David Bird, Reporter, New York Times

John A. Biros, Supervisor, Department Water &
Sewer, Village of North Tarrytown, North Tarrytown, N. Y.

Alan L. Blake, Legislative Assistant to Assembly-
man Joseph A. Fusco, N.Y.C.

Leonore A. Blitz, Secretary to Assemblyman William
Green, N. Y. C.

Ralph H. Bowers, Public Information Officer, Con
Edison, New York, N. Y.

E. Bradley Boyle, Health Publications Editor, New
York State Health Dept., Albany, N. Y.

Theodore Bramson, Davos Development Co., New York,
N. Y.

Alfred M. Buff, Supervisory Sanitary Engineer,
New York State Department of Health, New York, N. Y.

John B. Burt, Pollution Control Engineer, General
Aniline & Film Corp., Linden, N. J.

THOSE IN ATTENDANCE (Continued):

Garrett J. Byrnes, Chief, Construction Operations Division, North Atlantic Division Corps of Engineers, New York, N. Y.

Gary G. Caplan, Budget Analyst, New York State Assembly Ways & Means Committee, Albany, N. Y.

Paul R. Cardenas, Jr., Instructor, New York University, Bronx, N. Y.

George B. Case, Chairman, Planning Board, Tarrytown, N. Y.

T. R. Cooil, Associate, Parsons Brinckerhoff Quade & Douglas, New York, N. Y.

Robert E. Copeland, Engineer, O'Brien & Gere, Consulting Engineer, Syracuse, New York

Edmund Couch, Jr., Chief, Water Supply-Pollution Section, Army Corps of Engineers, Washington, D. C.

Doris L. Clark, Senator Basil Paterson, N. Y. C.

Jim Collis, Reporter, NBC News, N. Y. C.

Kenneth Darmer, Engineer, U. S. Geological Survey, Albany, N. Y.

Mrs. Edward M. Davis, Water Resources Chairman, League of Women Voters of New York State, Poughkeepsie, N. Y.

Stanley R. Davis, Regional Hydraulic Engineer, Federal Highway Administration, Dalmar, N. Y.

THOSE IN ATTENDANCE (Continued):

Paul De Falco, Jr., Deputy Regional Director,
FWPCA, U. S. Department of the Interior, Metuchen, N. J.

Philip E. Dodge, Executive Director, Hudson River
Conservation Society, Cold Springs, N. Y.

Thomas Donoghue, Air & Water News, N. Y. C.

William G. Eckenberg, Sr., Engineer, Hercules,
Inc., Delaware

Richard Fanning, Associate, W. E. Coduliced Associ-
ates, Syosset, L. I., N. Y.

William J. Farrell, District Health Officer,
Westchester County Health Dept., New York

Jean Faust, Research Assistant, Congressman William
F. Ryan, New York, N. Y.

Maurice M. Feldman, Deputy Commission Engineer,
New York City Dept. Sanitation, New York, N. Y.

Thomas Ferry, Director, Division of Construction
Grants, FWPCA, U. S. Department of the Interior, Washington,
D. C.

Robert Feuer, Project Engineer, New York City
Dept. of Public Works, New York, New York

Richard Field, Sanitary Engineer, Eastern Division,
Naval Facilities Engineering Command, New York, N. Y.

Jerome C. Flato, Chemical Consultant, IBM Real
Estate & Construction Division, White Plains, New York

THOSE IN ATTENDANCE (Continued):

Richard E. Foerster, Research Representative,
Greeley and Hansen, New York, N. Y.

Emil H. Frannel, Legislative Assistant to U. S.
Senator Jacob Javits, Washington, D. C.

Fillmore E. Garrison, Chief, Utilities Branch,
U. S. Military Academy, West Point, N. Y.

Isaiah Gellman, Assistant Technical Director,
National Council for Stream Improvement, New York City

Erick Gidlund, Assistant Professor, New York
University, Bronx, N. Y.

Matt Gould, Director, Environmental Control,
Georgia-Pacific, Portland, Ore.

Robert Green, Associate of Senator Robert F.
Kennedy, New York, N. Y.

Guy E. Griffin, Deputy Commissioner, Department
of Public Works, County of Westchester, N. Y., White Plains,
N. Y.

Raymond Grob, Hydraulic Engineer, Federal Power
Commission, New York, N. Y.

Virginia B. Gross, Program Chairman of Water
Pollution, National Society for Constitutional Security,
Edgewater, N. J.

Thomas P. Halley, Engineer, VA Hospital, Castle
Point, N. Y.

THOSE IN ATTENDANCE (Continued):

A. Handley, Associate Director, Division of Pure Water, New York State Dept. of Health, New York

J. C. Harding, Commissioner, Public Works, Westchester County, White Plains, N. Y.

John E. Harrison, Regional Engineer, New York State Health Department, White Plains, N. Y.

Kenneth B. Hauptman, Plant Operator, Castle Point VA Hospital, Castle Point, N. Y.

Marcia Hays, Reporter, The Record, Bergen County, N. J.

Sheila E. Hermes, LeBoeuf Lamb & Leiby, New York, N. Y.

H. Heukelekian, Killam Associates, Millburn, N. J.

William H. Honore, Supervisory Recreational Planner, U. S. Department of the Interior, Bureau of Outdoor Recreation, Falls Church, Va.

Mary Hornaday, Staff Correspondent, The Christian Science Monitor, N. Y. C.

John W. Horhey, Consultant, City of New York, Bureau of Water Pollution Control, Department of Public Works, N. Y. C.

Bruce Howlett, Associate Executive Director, Hudson River Valley Commission, Tarrytown, N. Y.

THOSE IN ATTENDANCE (Continued):

Thomas N. Hushower, Sanitary Engineer, U. S.
Public Health Service, New York, N. Y.

Frank K. Inzerillo, Environmental Engineer,
General Aniline & Film Corp., Linden, N. J.

Albert C. Jensen, Assistant Chief of Marine
Fishing, New York State Conservation Department, Ronkonkoma,
N. Y.

Roscoe P. Kandle, Commissioner, New Jersey Depart-
ment of Health, Trenton, N. J.

William A. Keane, Sr., Engineer, New York State
Health Department, White Plains, N. Y.

Richard W. Keeler, Supervisory, Town of Brunswick,
Troy, N. Y.

Francis W. Kelly, Assistant Chief, Construction
Grants, Division of Pure Waters, New York State Department of
Health, Albany, N. Y.

Murray Kempton, Correspondent, New York Post
Political Column, New York, N. Y.

E. J. Kilcawley, Professor of Environmental
Engineering, Rensselaer Polytechnic Institute, Troy, N. Y.

F. W. Kittrell, Acting Chief, Technical Assistance
and Investigation, Federal Water Pollution Control Administra-
tion, Cincinnati, Ohio

THOSE IN ATTENDANCE (Continued):

Marion J. Klawonn, Assistant Editor, Engineering News Record, New York, N. Y.

Martin Lang, Director, Bureau of Water Pollution Control, Department of Pure Waters, N. Y. C.

Howard J. Lampil, Chief, Harbor Supervision Branch, U. S. Army Corps of Engineers, New York District, N. Y.

David Laredo, Sanitary Engineer, Tippetts-Abbett-McCarthy-Stratton, New York, N. Y.

Alfred C. Leonard, Partner, Malcolm Pirnie Engineers, White Plains, N. Y.

Harvey Liebe, Assistant Professor, Rutgers, University, Newark, N. J.

Leonard Lipton, Division Engineers, Standard Brads, Inc., N. Y. C.

John J. A. Lyons, M. D., Commissioner of Health, Albany Co. Sewer Agency, Albany, N. Y.

John L. Maneini, Engineer, Hydrosience, Inc., Leonia, N. J.

James L. Marcus, Commissioner, Water Supply Gas & Electric, New York, N. Y.

Carl J. Mays, Planning Director, Orange County, Goshen, N. Y.

Edward H. Meiser, Investigator, Corps of Engineers, Albany Field Office, Troy, N. Y.

THOSE IN ATTENDANCE (Continued):

Charles F. Miles, Jr., Assistant Director, New York City Health Department, New York, N. Y.

Otto Milgram, Associate, E. T. Killam Associates, Inc., Millburn, N. J.

Dr. Alan H. Molof, Associate Professor of Civil Engineering, New York University, Bronx, N. Y.

Joseph Monkoski, Civil Engineer, National Park Service, Philadelphia, Pa.

J. I. Munson, Vice President, Hydronics Corp., Metuchen, N. J.

Lawrence Joseph McCarren, Mechanical Engineer P.S.C., General Services Administration, N. Y. C.

James E. McShane, Emergency Planning Officer, Maritime Administration, Department of Commerce, N. Y. C.

M. Newmark, President, Newmark & Co., N. Y. C.

Norman H. Nosenchuck, P. E., Assistant for State Contracts, Construction Grants Activities, New York State Department of Health, Albany, N. Y.

Irwin W. Novick, Chief, Federal & State Aid Unit, Department of Public Works, N. Y. C.

James F. O'Donnell, Assistant to City Council President Frank D. O'Connor, New York, N. Y.

THOSE IN ATTENDANCE (Continued):

Brian O'Neill, Recreation Resource Specialist,
Bureau of Outdoor Recreation, Washington, D. C.

John T. O'Neill, Consulting Engineer, Brooklyn,
N. Y.

Richard Paccione, P. E., Director, Division of
Environmental Health, Yonkers City, Yonkers, N. Y.

Frank L. Panuzio, Chief Engineering Division,
Department of the Army, New York District Corps of Engineer,
New York, N. Y.

Mrs. Norman H. Parsons, Water Commission, League
of Women Voters, State of N. Y.

A. S. Pearson, Division Engineer, Consolidated
Edison Co. of New York, Inc., New York, N. Y.

Lincoln Peschiera, Engineer Group Leader, National
Lead - Titanium Division, South Amboy, N. J.

James Pfafflin, Assistant Professor, Corps of
Engineers, Brooklyn Polytechnic Institute, Brooklyn, N. Y.

Anthony J. Popowski, Executive Director, Middlesex
County Sewerage Authority, Sayreville, N. J.

Francis X. Popper, Captain, USESSA, Coast &
Geodetic Survey, Rockville, Md.

Robert A. Potts, Jr., Reporter, WCBS-TV News,
N. Y. C.

THOSE IN ATTENDANCE (Continued):

Howard Quinn, Metropolitan District Director, New York State Office of Planning Coordination, N. Y. C.

Thomas P. Quirk, Partner, Quirk, Lawler & Mansiey, Engineers, New York, N. Y.

John M. Rademacher, Director, Division of Technical Services, Federal Water Pollution Control Administration, Washington, D. C.

Paul Resnick, Project Information Officer, U.S. Department of the Interior, Federal Water Pollution Control Administration, Metuchen, N. J.

Rocco D. Ricci, Chief, Construction Grants Program New York, New Jersey and Delaware, FWPCA, Metuchen, N. J.

Colonel William L. Rich, Chairman, Commission for the New York - Montreal Sewage, N. Y. C.

Anthony R. Ricigliano, Supervisory Public Health Engineer, New Jersey State Department of Health, Trenton, N. J.

F. R. Riley, Water Consultant, American Cyanamid, Wayne, N. J.

B. P. Robinson, P. E., Chief, Engineering Branch Region I, U. S. Department of Housing and Urban Development, N. Y. C.

E. W. Rossell, Administrative Assistant, New York State Health Department, Albany, N. Y.

THOSE IN ATTENDANCE (Continued):

S. Sattler, Federal and State Aid, Assistant Chief, Department of Public Works, New York, N. Y.

Harry Schlegel, Research Director, New York Joint Legislative Committee of Interstate Coop., N. Y. C.

Arthur J. Schor, Assistant Civil Engineer, New York City Health Department, New York, N. Y.

John Schubeck, Reporter, ABC News, New York, N. Y.

Fred J. Shumas, Chief Hydraulic Engineer, H. A. Simons Int., Canada

Louis Schwartz, Chief Plant Design, Bureau of Water Pollution Control, Dept. of Public Works, New York, N. Y.

Theodore A. Schwartz, Deputy Attorney General, State of New Jersey, Trenton, N. J.

Sol Seid, Chief Engineer, Middlesex County Sewerage Authority, Sayreville, N. J.

Whitney North Seymour, Jr., State Senator, New York, N. Y.

William K. Shaffer, Chief, Construction Grants Activities, New York State Department of Health, Albany, N. Y.

Steve Singer, Reporter, Nyack Journal - News, Nyack, N. Y.

S. F. Singer, Department Assistant Secretary, U. S. Department of the Interior, Washington, D. C.

THOSE IN ATTENDANCE (Continued):

R. Hobart Souther, Research Consultant, Greensboro,
N. C.

Anton E. Sparr, Principal Engineer, Alexander
Potter Associates, New York, N. Y.

Carl J. Stefanik, Director of Environmental
Health, Rensselaer County Health Department, Troy, N. Y.

Mrs. Claire Stern, Administrative Assistant
Nassau County Planning Commission, County Executive E. H.
Nickerson, Mineolo, N. Y.

Lester A. Sutton, Regional Construction Program
Director, Federal Water Pollution Control Administration,
Metuchen, N. J.

Alfred Tayne, Assistant Chief Financial Assistance,
Small Business Administration, N. Y. C.

Leo Tobias, Engineer, Corps of Engineers, Office
of Chief Engineers, Washington, D. C.

Martin Tuman, Assistant U. S. Attorney, U. S.
Attorney District, New Jersey, Newark, N. J.

George R. Turner, Jr., Assistant Division
Engineer, U. S. Federal Highway Administration, Bureau of
Public Roads, Albany, N. Y.

Rod Vandivert, Scenic Hudson, N. Y. C.

THOSE IN ATTENDANCE (Continued):

Kenneth H. Walker, Deputy Director, Federal Water Pollution Control Administration, Metuchen, N. J.

John H. Warden, Mayor, City of Rensselaer, N. Y.

C. H. Wentworth, Lieutenant Colonel Public Health Service, Health & Sanitation Officer, U. S. Coast Guard 3rd Coast Guard Dispensary, Governors Island, N. Y.

George F. Whyte, Assistant Civil Engineer, New York City Department of Health, New York, N. Y.

John Geottscy Will, Assistant Regional Solicitor, Department of the Interior, Philadelphia, Pa.

Robert L. Wilson, Director, Basic Planning Studies, Department of City Planning, N. Y. C.

James F. Wolfe, Civil Engineer, National Park Service, New York, N. Y.

Allan Wolper, Reporter, Associated Press, N. Y. C.

John F. Wrocklage, Chief, Plan Formulation Branch, Planning Division, North Atlantic Division, Corps of Engineers, New York, N. Y.

Opening Statement - Mr. Stein

P R O C E E D I N G S

OPENING STATEMENT

BY

MR. MURRAY STEIN

MR. STEIN: The conference is open.

The second session of the conference in the matter of pollution of the interstate waters of the Hudson River and its tributaries is being held under the provisions of the Federal Water Pollution Control Act.

Under the provisions of the Act, the Secretary of the Interior is authorized to call a conference of this type when requested to do so by the Governor of a State, and when on the basis of reports, surveys, or studies, he has reason to believe that pollution of interstate waters subject to abatement under the Federal Act is occurring.

The purpose of the conference is to bring together the State and interstate water pollution control agencies, representatives of the U. S. Department of the Interior, and other interested parties to review the existing situation and the progress which has been made, to lay a basis of future

Opening Statement - Mr. Stein

action by all parties concerned, and to give the States, localities, and industries an opportunity to take any indicated remedial action under State and local law.

As many of you know, the conference technique is rather an old one. It is used informally by both States here, certainly, in the conduct of their business, and by us in our business.

As a matter of fact, the conference technique was long ago suggested by a very famous case in 1921. The Supreme Court, in considering the case of pollution involving New York and New Jersey, said:

"We cannot withhold the suggestion, inspired by the consideration of this case, that the grave problem of sewage disposal by the large and growing population living on the shores of New York Bay is one more readily to be most wisely solved by cooperative study and by conference and mutual concession on the part of representatives of the States so vitally interested in it than by proceedings in any court however constituted."

I think that these statements are as true today, more than forty years later, as they were then.

We are still working on this problem, as this conference indicates, but, hopefully, we are a little closer

Opening Statement - Mr. Stein

towards the solution of it. While much water has gone under the bridge since then, we do truly have the evidences of a cooperative Federal-State-interstate-local program in this area.

I think even with the differences in the Federal, local, State and interstate agencies, it might be said, and I hope not too loosely, that we are all working as one staff, trying to get this basic problem solved.

The first session of this conference was held on September 28-30, 1965, at the request of the Governors of New York and New Jersey and on the basis of reports, surveys, or studies.

At the first session, the conferees recommended a remedial program that included the following:

1. All discharge sources to the Hudson River and its tributaries, whether public, Federal installations, or industrial, shall receive a minimum of secondary treatment or its equivalent, and effective disinfection of the effluents as required to protect water uses.

2. Industrial plants shall improve practices for the segregation and treatment of wastes to effect the maximum reduction of the following:

- a) Acids and alkalies;

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- b) Oil and tarry substances;
- c) Phenolic compounds and organic compounds that contribute to taste and odor problems;
- d) Nutrient materials including ammonia and nitrogenous phosphoric compounds;
- e) Suspended material;
- f) Toxic and highly colored wastes;
- g) Oxygen requiring substances;
- h) Heat;
- i) Foam producing discharges;
- j) Other wastes which detract from recreational uses, esthetic enjoyment or other beneficial uses of the waters.

Subsequent to the conference, the Secretary of Health, Education, and Welfare recommended a time schedule for implementation of the remedial program. This schedule is as follows:

- a) Designs for remedial facilities completed by January 1, 1967;
- b) Financing arrangements completed by April 1, 1967;
- c) Construction started by July 1, 1967;
- d) Construction completed and plants placed into operation by January 1, 1970;

Opening Statement - Mr. Stein

e) Commensurate schedules to be adopted for the interception and treatment of industrial wastes and wastes from Federal installations;

f) Existing schedules calling for earlier completion dates are to be met.

This second session of the conference was called for the purpose of reviewing compliance with the recommended schedule of remedial action and for taking up any other problems which may be appropriate.

As specified in Section 10 of the Federal Water Pollution Control Act, the Secretary of the Interior has notified the official State water pollution control agencies of New York and New Jersey, and the Interstate Sanitation Commission, of this conference. This conference is between the official State and interstate agencies and the United States Department of the Interior. The New York State Department of Health will be represented by Mr. Dwight Metzler, who is out of the room since, I guess, he might expect a distinguished visitor shortly, and Mr. Handley is sitting in for him while Mr. Metzler is out.

The New Jersey State Department of Health is being represented by Dr. Roscoe P. Kandle.

The representative of the Interstate Sanitation Commission is Mr. Thomas Glenn, Jr.

Opening Statement - Mr. Stein

Mr. Lester Klashman, our Regional Program Director, has been designated as conferee for the Federal Government.

My name is Murray Stein. I am from Washington, D. C., and the representative of Secretary Udall.

The parties to this conference are the representatives of the State and interstate agencies and the United States Department of the Interior. Participation in the conference will be open to representatives and invitees of these agencies and such persons as inform me that they wish to present statements. However, only the representatives of New York, New Jersey, the Interstate Sanitation Commission, and the United States Department of the Interior constitute the conferees.

Both the State and Federal governments have responsibilities in dealing with water pollution control problems. The Federal Water Pollution Control Act declares that the States have primary rights and responsibilities for taking action to abate and control pollution. Consistent with this, we are charged by law to encourage the States in these activities.

At the same time, the Secretary of the Interior is charged by law with specific responsibilities in the field of water pollution control in connection with pollution

of interstate and navigable waters. The Federal Water Pollution Control Act provides that pollution of interstate or navigable waters, whether the matter causing or contributing to the pollution is discharged directly into such waters, or reaches such waters after discharge into a tributary of such waters, is subject to abatement.

We will have a transcript made of the conference by Mr. Zimmer.

Now a word about the procedures governing the conference.

All participants should come up to the lectern and should make themselves known as to name and identification for purposes of the record.

As in the past, we will make transcripts of the record available to the States and interstate agency for distribution. Mr. Zimmer is making a verbatim transcript of this conference. He is a private reporter who has received a contract from us as the low bidder. We generally make these transcripts available in about four months. If you feel you want it earlier, get in touch with Mr. Zimmer, and I am sure his rate to you will be as reasonable as it is to us.

At this point, I would like to call on someone whom I would like to refer to as my former boss, Under Secretary of the Department of Health, Education, and Welfare, 1953-1954, and a long

Hon. N. D. Rockefeller

fighter for water pollution control, the Governor of New York, Mr. Rockefeller.

(Applause.)

STATEMENT OF THE HONORABLE NELSON D.

ROCKEFELLER, GOVERNOR OF THE STATE OF

NEW YORK

GOVERNOR ROCKEFELLER: Mr. Stein, Distinguished Officials and Ladies and Gentlemen:

I appreciate tremendously this opportunity of joining again with Mr. Stein, as we did two years ago, and having an opportunity to make a report on the progress that has taken place in relation to this important problem of pollution control of the Hudson River.

I have a prepared statement, which is available, and, if I may, Mr. Chairman, I would prefer just to speak informally for a few minutes and show four or five slides which I think probably would tell the story better.

MR. STEIN: For the purpose of the record, may we put your entire statement in as if read?

GOVERNOR ROCKEFELLER: Please do.

MR. STEIN: Thank you.

Hon. N. D. Rockefeller

GOVERNOR ROCKEFELLER: Thank you.

The meeting that was held two years ago followed the legislative session that spring in New York at which I had proposed the Pure Waters Program.

This program received the almost unanimous support of both houses and of both parties, so the efforts here in New York State have been a bipartisan effort to restore the waters of our lakes, rivers, streams and oceanfront for the use of the people.

We are deeply grateful to the Federal Government for their long-time interest, for their active participation in focusing public attention on these problems through the holding of these hearings, and for the cooperation both of the Administration and of Congress in working with us on the legislative aspects of our problems.

New York State, as you will remember, was faced with a very serious large-scale problem which was beyond the capacity of local government from a fiscal point of view, which was really beyond the rate at which the Federal assistance was being made available, and, particularly, in view of the formula which did not help the large industrial States where pollution has persisted into being, so that the State action taken by the New York State Legislature was designed to accomplish two things:

Hon. N. D. Rockefeller

1. To provide the funds for local government that were essential if they were going to meet the problem; and

2. To prefinance Federal assistance so that we could move with speed for the purpose of getting our waters restored to their original state, or close to it, and also to avoid the rapidly increasing costs in construction.

I think it is fair to say these costs are going up at the rate of 5 percent a year now. This represents, on the basis of compound interest, a doubling of cost every 10 years, which is a very serious problem, particularly when New York State's estimated costs for pollution control by municipalities and governmental units throughout the State were a total of \$1,700,000,000, so that if we waited ten years, it would easily have gone over \$3,000,000,000. Then the next ten years it would have been over \$6,000,000,000 so the situation was getting away from us.

Perhaps the most gratifying thing about the program was the billion dollar bond issue which was authorized by the legislature to assist local governments, along with a very strict control legislation, which gave us the power of enforcement.

This bond issue was approved four to one by the voters of the State, evidencing the extraordinary interest

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and concern on the part of the people of this State and their willingness to pay to get the job done, so that I think the voters have spoken in a way that is very significant, not only for our State, but, I am sure, this has greater real implication nationwide.

The billion dollar bond issue was designed so that \$500,000,000 would be available as an outright grant to local communities from the State, representing 30 percent of the cost. The other 50 percent of the bond issue, another \$500,000,000, was to prefinance the 30 percent Federal aid.

The legislators and the voters of the State acted on this concept prior to the approval of the concept by Congress, which was an evidence of faith on the part of the voters and of the legislators.

I cannot say enough for the support of the Administration and of the Congress in making it possible for New York State to get the credit later through subsequent allocations of funds for moneys we had spent on their behalf.

I think this really is the key to the program. I have been meeting with various other governors who have been talking to us here about the possibility of following a similar course. This course makes it possible for the State to move rapidly with local governments through enforcement procedures, and then to advance the money, and then, over a

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period of years, depending on the funding by the Congress, to get this money back over 25 years, or 50 years, or whatever it happens to be.

I was asked by the Chairman of the committee in the House to testify because of the reduction in the amounts requested by the Administration for this year's allocation. I think it was \$650,000,000 or \$600,000,000, and the Congress reduced it to \$200,000,000.

Now, that is very serious for the communities which are dependent on Federal aid in proceeding with their programs. If they have the programs in the works and the aid is cut so that they do not get 30 percent, or whatever the formula provides, then they find themselves in a very difficult position. The project is held up. If there isn't any financing, it can be tremendously expensive and very embarrassing.

However, with the prefinancing provision, while we like to get the funds as rapidly as possible, the State can proceed and sell our bonds, and then, over a period of years, get the funds back.

I would like now to just briefly depict the situation in the Hudson River known as the Lower Hudson River, from Albany south. That is the principal portion of that river. I am not sure how the particular words "Lower Hudson"

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identify with this session.

First, I would like to show some slides, if you will put the lights out.

This chart (indicating) shows the situation when you were here, Mr. Stein, the last time. These were the principal sources of pollution of the Hudson River, dumping some 700,000,000 gallons a day of pollution into the river at the points indicated on this chart, from Rensselaer or from Albany south.

I would like to show you next what has taken place since the meeting as the result of the approval by the voters of the bond issue.

The Public Works Department has held enforcement hearings with all of the polluters who were involved in this Hudson River area. The principal polluters amount to in the neighborhood of 100. Of the 97.1 percent of the total number of cases, 96.5 percent have received stipulative orders so that the corrective action will be taken. These have been settled as a result of the hearings.

In addition, 2.9 percent agreed voluntarily to proceed.

There are adversary orders out for 0.1 percent, and 0.5 percent cases are pending, which will be cleared up in short order.

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So that, as far as legal action by the State is concerned, the action has been completed with this small percentage of 0.5 percent, or one-half of one percent, which will be completed in the not too distant future, so that the legal action has been taken, and we now move to the effective action as far as the actual building of sewage disposal plants by the pollution communities.

The next chart I would like to show you has the dates at which these sources of pollution will be corrected through the development of the sewage disposal plants, and there is an overlay for each one. The first is 1966-67, where five units have been completed; 1968, there are a considerable number more in the Lower Hudson here or down in Rockland and Westchester Counties, the Bronx and Kings County; 1969, the red dots show those that will come in that year, and then 1970, 1971, and 1972 is the final year for completion of the cleaning up of all the pollution sources of the Hudson River, and the orders, except for half of one percent already have been agreed to and settled.

Now let us go to the question of the quantities involved. I mentioned 757,000,000 gallons a day of pollution when we met here before.

Already today, 1967, the total commitments by State and local government, with Federal assistance, coming to \$407,000,000, have been submitted, and the pollution has

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been reduced to 447,000,000 gallons per day.

This is importantly affected by the Newtown Creek project here in New York, in the Bronx, which is the largest project in the country, which was started in the Wagner administration in 1960, and which came into full operation a month or so ago, and which is also the biggest single step that has taken place.

The State has participated in that, in the construction which was still under way from the date the bond issue went into effect, and we will invest a total of about \$38,000,000 in that project, which is a very expensive project.

In the next two years, 1968 and 1969, we are getting into large plants which as yet have not advanced sufficiently so that they will come on line and therefore be effective, so the reduction for the next two years is relatively small, and we go down to 418,000,000 gallons, 400,000,000 gallons, with smaller investment, and then, starting in 1970, we have the two large years as the big plants come into effect that are now being put in the works, and the reduction in 1970 will be 292,000,000 gallons with the expenditure of \$148,000,000 that year; in the next year it will be reduced to 270, with an investment of \$29,000,000; and then the final year, 1972, is when the remaining big projects will come on line with a total investment of \$355,000,000,

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bringing down pollution from all of these sources to zero.

Of course, this does not include New Jersey. I understand that Governor Hughes released a statement yesterday indicating a schedule which is being worked on by New Jersey, but I think that we ought to point out that New Jersey's pollution related to New York's has been relatively small, about 30,000,000 gallons a day, so that in relation to what we have been doing, this is relatively minor, but I do think again to this sophisticated audience I hardly need to mention it, but the tides do distribute whatever is dumped into the Lower Bay as far upstream as Poughkeepsie on the inflowing tides, so that it is an important matter to the use of the Hudson River.

I would now like to just go into a review of the financing, which I think further indicates the importance of the method which is being used here to permit action rapidly.

This (indicating) shows the total financing of projects which come to a little bit over \$1,000,000,000 for the cleaning up of the lower Hudson River, as has been described from Albany south.

Of this financing, the red indicates the portion which the State has given as an outright grant, or will have, when 1972 is reached, which represents 30 percent.

The blue represents the money we are advancing

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against future State payments. That total of our State outright grant and the advance of Federal funds comes to \$584,000,000.

The next column, the light green, shows the 40 percent being financed by local government, with a total of \$402,000,000.

Then this small black line indicates what we anticipate, on the basis of present Congressional appropriations, to be the Federal share, which is \$17,000,000, or 1.76 percent of the total cost.

I think if Congress needs a dramatic illustration as to why more funds are needed from the Federal Government to get these projects in the works, this chart will be pretty useful, because, frankly, if it were not for this pre-financing and the leadership taken by the State in getting the job done, we would not be able to get off the ground if we depended on the Federal money.

I recognize all the problems Congress is faced with, and I recognize the President has recommended larger sums. This is not stated critically; this is simply stated analytically; but I think that from the point of view of the citizens of the State, that there is a role that the State should take, that funding through bonds is a very convenient and a very effective way of getting the job done and permits

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action now, which in the long run is very much in the interest of the citizens, because it is a lot cheaper, even paying whatever interest is involved in these bonds, than spreading it out over the next thirty years, and then finding yourself faced with these fantastic costs which are ahead of us.

I would now like to show you two other programs we have. These (indicating) are some of the plans that are being developed by municipalities along the Hudson for marinas, which shows that our citizens and communities are already anticipating 1972 and are making their plans for the use of the waterfront.

This is a master plan from the capital city of Albany for the use of the Hudson there, and for those of you who have ever been to Albany, this is quite a change (Laughter).

I would like to show you another marina. This (indicating) is a proposed marina that Poughkeepsie is working on, but I think it gives a little feel of the tremendous potential for development, for enjoyment, for use of the river which will be restored as a result of this program.

I would like to say, Mr. Stein, that your presence here, your calling of this second conference, is deeply appreciated by the State.

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The tremendous drive which you and your associates have put into this program has been a source of stimulus, of interest, and a focus of public attention to help those of us on the lower level get the job done.

We thank you very much indeed.

MR. STEIN: Well, thank you, Governor, very much.

(Applause.)

(The following is the statement submitted by the Honorable Nelson D. Rockefeller:)

REVISED COPY

P.M., WEDNESDAY

SEPTEMBER 20, 1967

EXCERPTS OF REMARKS BY GOVERNOR ROCKEFELLER
PREPARED FOR DELIVERY BEFORE THE U. S. DE-
PARTMENT OF INTERIOR HUDSON RIVER CONFER-
ENCE, WEDNESDAY, SEPTEMBER 20, 1967, 9:30
A.M., STATLER HILTON HOTEL, NEW YORK CITY.

In December 1964, I announced the Pure Waters Program and subsequently in 1965 I proposed to the New York State Legislature a comprehensive program to eliminate the pollution of the lakes, rivers, streams, and oceanfronts in New York State in six years.

The Legislature passed the plan almost unanimously in both houses and six months later the voters endorsed the

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\$1,000,000,000 Pure Waters Bond issue by an overwhelming 4-1 vote.

At that time, not one of the 28 major polluters between the Troy locks and the Brooklyn estuary had a completely effective sewage treatment program.

Almost all of the approximately 80 smaller polluters along this stretch of water were discharging raw sewage and untreated industrial wastes into the Hudson.

Altogether, 757,000,000 gallons of raw and inadequately treated sewage were polluting this river every day.

The majestic river that Hendrik Hudson exulted over was rapidly becoming an open sewer.

That, very briefly, was the situation in September of 1965.

Since that date, we have achieved dramatic progress under the New York State Pure Waters program, using both a carrot and a stick.

The carrot we hold before our communities is State aid for the construction of sewage treatment facilities.

The State pays 30 percent, prefinances a Federal share of 30 percent, and only the remaining 40 percent is borne by the municipality.

We also created a Pure Waters Authority which, at a community's request, will make loans for the construction

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of sewage treatment systems, help to plan these systems and even contract to build and operate the plants for the community.

The stick has been streamlined enforcement machinery that requires every polluter to plan, finance, build and operate sewage treatment facilities by a specified date.

These facilities must meet established State standards for water quality.

Between the carrot and the stick, we have moved swiftly.

Within two years, 99.5 percent of the New York State polluters along the Hudson from Troy to New York City have been brought under order or have agreed to a construction timetable with the result that by 1972 all pollution of the Hudson River from New York State sources will have been terminated.

The conclusions and recommendations of the first conference on the Hudson made note of the fact that the clean-up of the river was a task that was to be shared by the States of New York and New Jersey, the Interstate Sanitation Commission, and the Federal Government.

I would like to commend the cooperating governmental agencies for their work since then.

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Several months ago, for instance, the Federal arsenal at Watervliet began construction of a facility that will treat 150,000 gallons of waste a day.

However, there are unresolved problems in Federal financing.

Federal water pollution control legislation has established the Federal share of sewage plant construction aid at a minimum of 30 percent.

A maximum of 55 percent can be given, if certain conditions are met.

Projects in New York State will meet all these conditions, and thus be eligible for the full 55 percent Federal grant, plus the 30 percent State grant.

Unfortunately, the Federal program has not been funded at a level that will provide even a small fraction of the full 55 percent Federal aid.

The facts are that under existing trends New York State will be spending nearly \$600 million to clean up New York sources of pollution, the local government about \$400 million and the Federal Government less than \$20 million.

Although the U. S. Clean Waters Restoration Act of 1966 authorizes \$450,000,000 for this purpose in the 1968 fiscal year, the proposed Federal budget would actually appropriate less than half of this amount -- about \$200,000,000.

Let me make clear to you that the antipollution

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schedule for the Lower Hudson that New York State has adopted will be met -- regardless of what funding action the Federal Government takes

Nonetheless, the supporting level of the proposed Federal appropriation for fiscal 1968 makes it apparent that the Federal Government will be providing less than 2 percent as opposed to a full 55 percent Federal share of project costs.

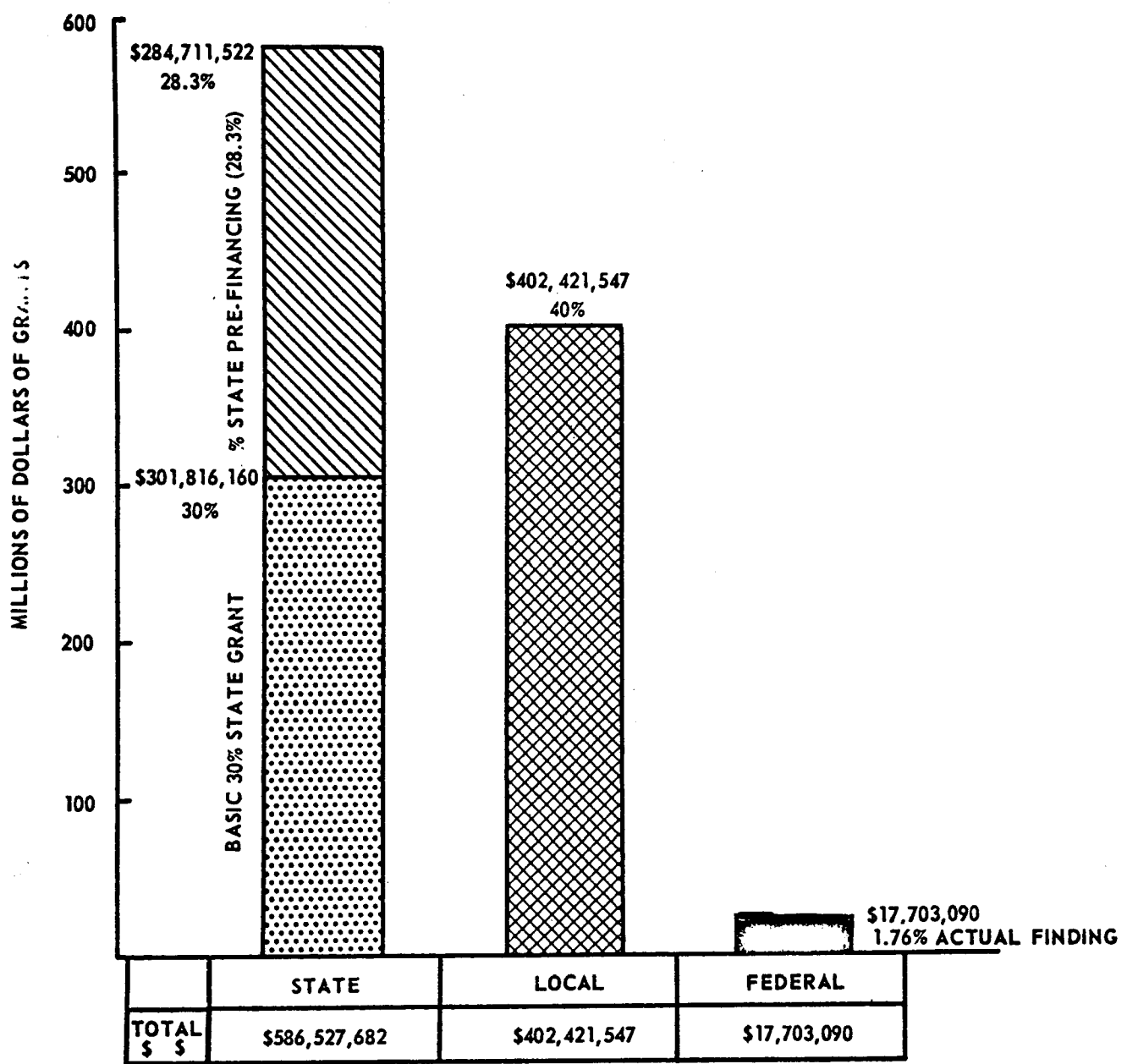
New York State will terminate all its sources of pollution of the Hudson by 1972.

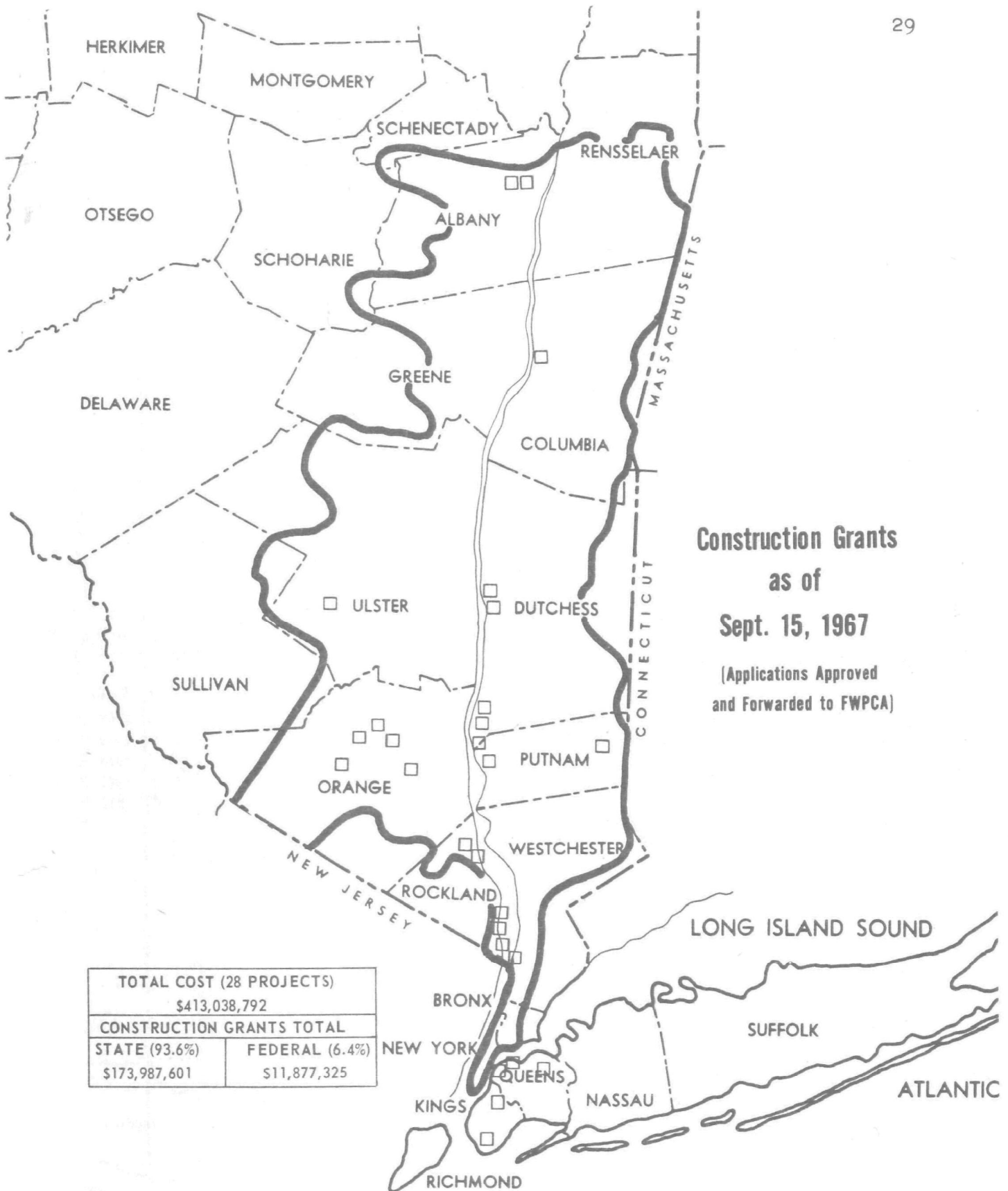
It is essential that New Jersey take prompt action on a scale and schedule similar to New York's.

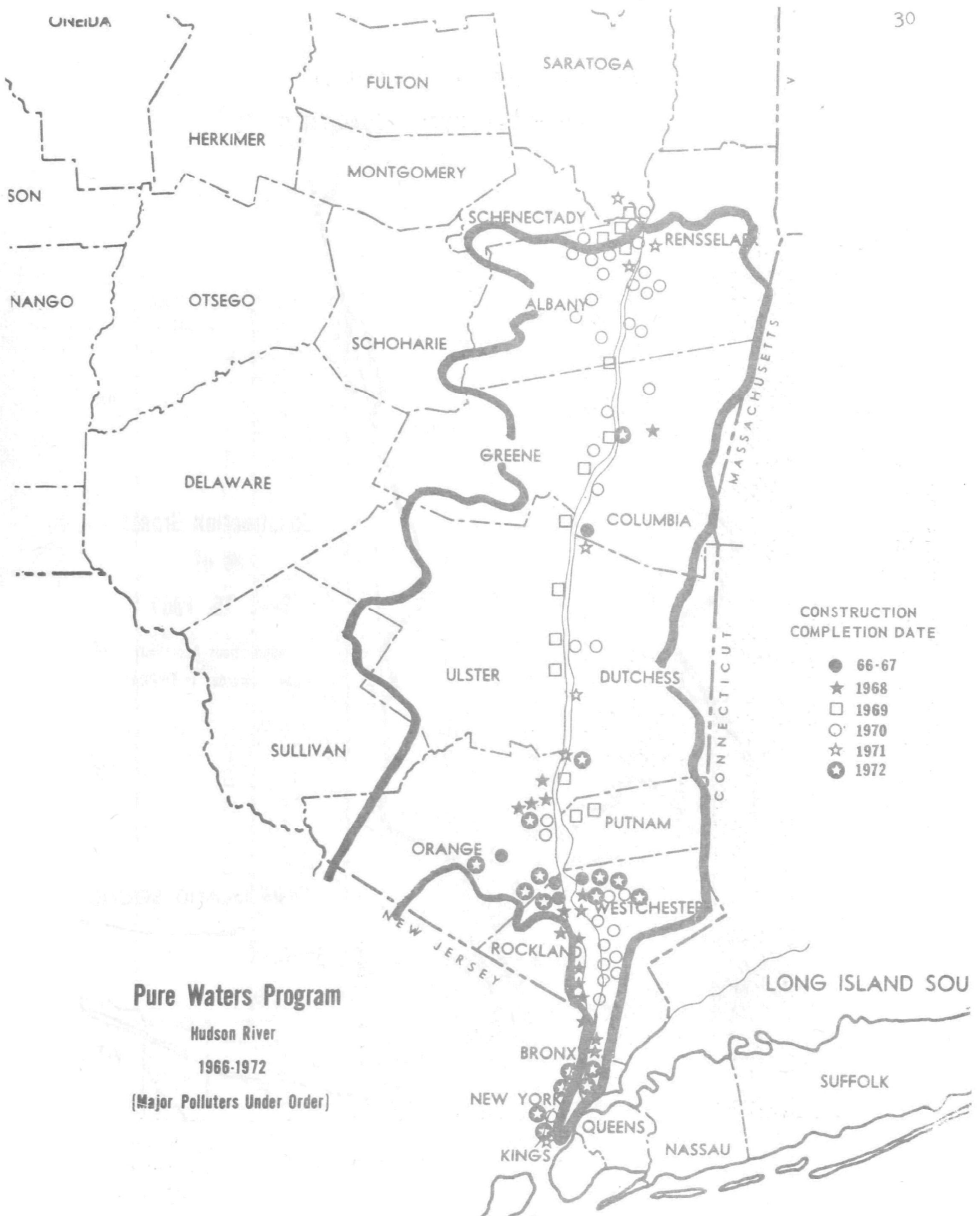
The States of New Jersey and New York and the Federal Government must each do its share to meet the problems confronting them.



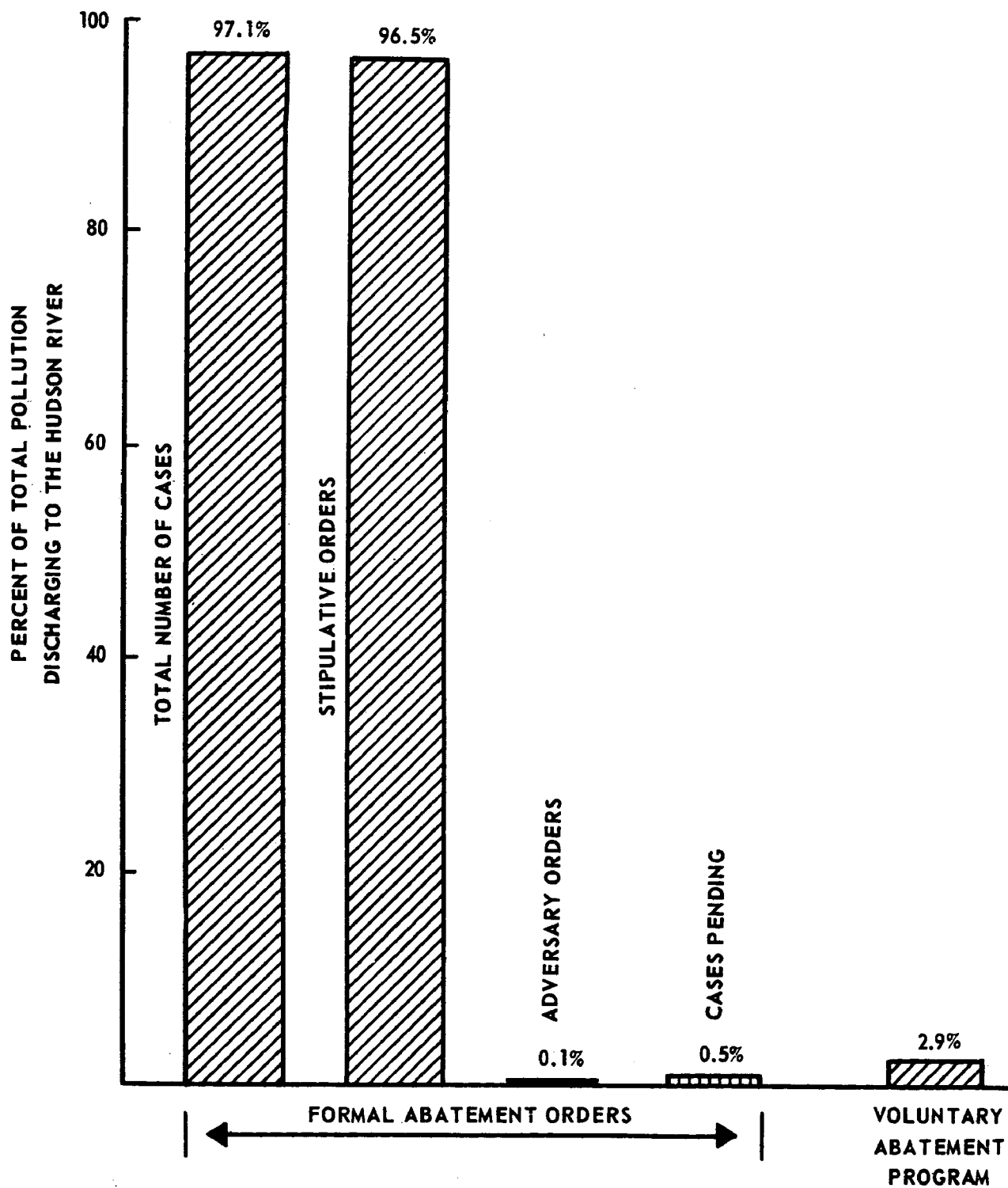
STATE-LOCAL-FEDERAL PARTICIPATION IN TOTAL PROJECTS COSTS
OF PURE WATERS PROGRAM-
LOWER HUDSON RIVER AND ITS TRIBUTARIES



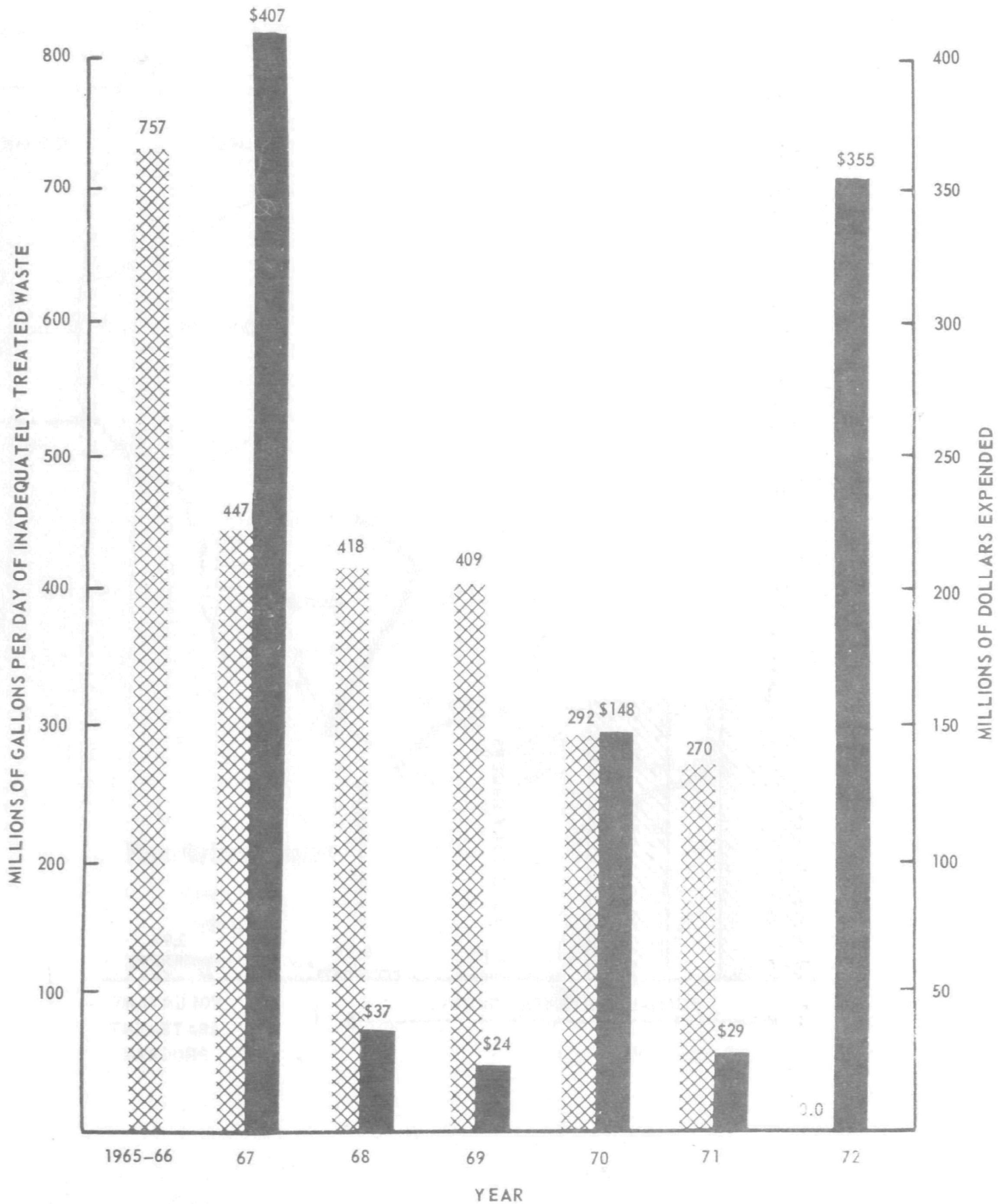


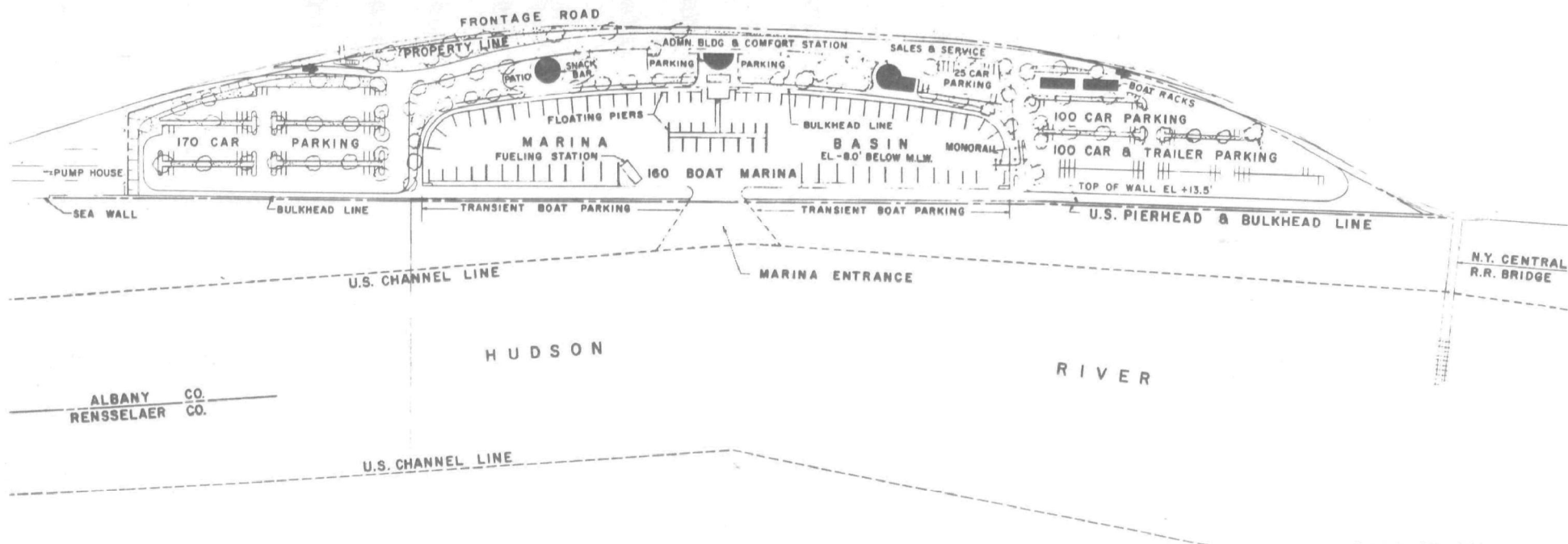


WATER POLLUTION ABATEMENT
(AS A PERCENT OF TOTAL POLLUTION)



REDUCTION OF WASTES - EXPENDITURE BY YEAR
(LOWER HUDSON RIVER BASIN)



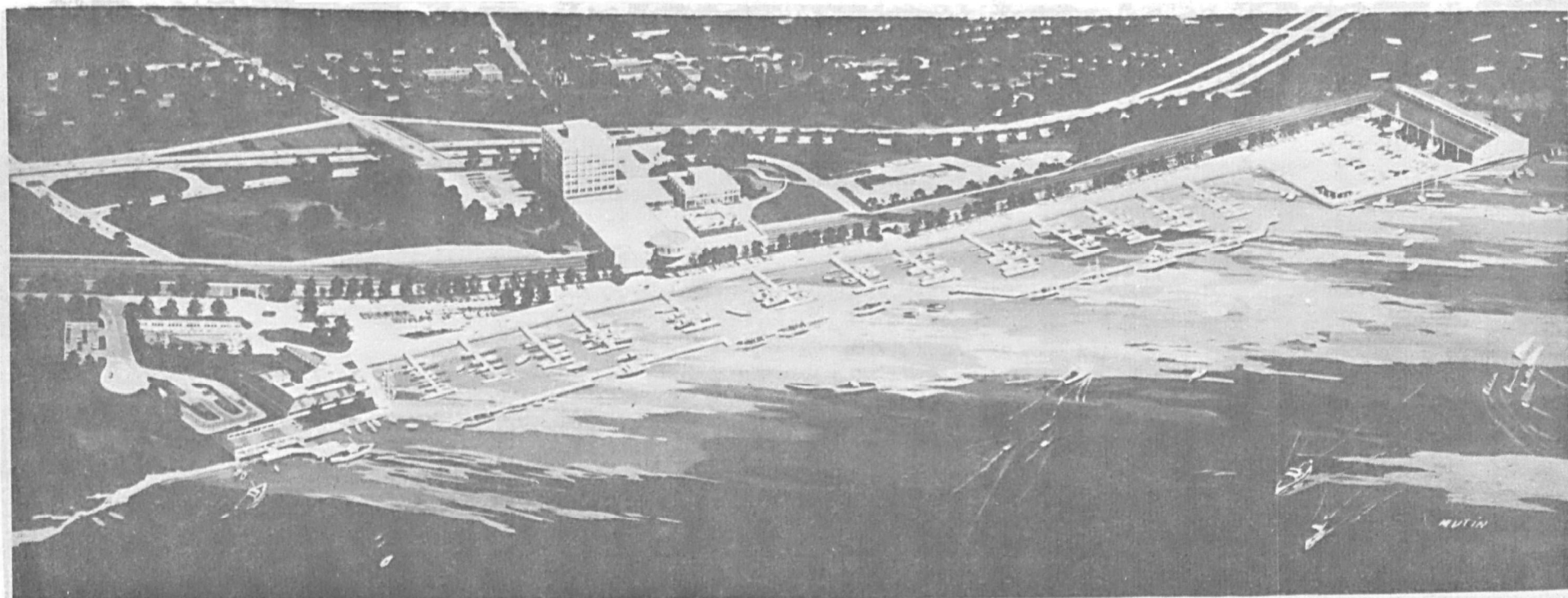


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GRAPHIC SCALE IN FEET
100 0 100 200 300

CAPITAL CITY AREA
MASTER PLAN
NEW YORK STATE - CONSERVATION DEPARTMENT

PLATE NO 9



PROPOSED MARINA
POUGHKEEPSIE, N.Y.

MR. STEIN: Whenever we speak of a Federal-State program or a State-Federal program and its being creative, I think we should be talking about creativeness as being in the States. In New York we certainly have it.

We have an audience of experts here, and I think you have just heard one of the most sophisticated talks by a governor of a State that you will probably ever hear, who has really mastered the situation.

As the Governor pointed out, I think the evidence here is very, very true. What he says is true. One large midwestern city which was fooling around with State auditors found that in a little less than ten years, frankly, it had a bill which cost double what it would have otherwise. This was in about ten years. So you can see the issue is to not delay but really do it now.

There are three essential points, and the Governor really brought them out. The first is to do the prerequisite legal action; the second is to handle the financing; and the third is to keep your eye on the cleanup of pollution. These are the three key points we have before us.

The Governor has stated that to handle the first, it takes appropriate legislation and when I grew up what we called "intestinal fortitude." I think we now call it "guts." That point is demonstrated in New York. Your

program has it. The financing took a little push and imagination. With both of these working, I am sure we are going to see a cleanup of pollution.

This program in New York State has added impetus to the other programs throughout the country.

For ourselves, one of the dreams we have had has been a State-Federal program. As I pointed out before you came in, Governor, as far as I can see, in the areas in which we are working here we practically, in water pollution control, are working as one staff with the people in the States. We do not see any difference. We all have the vagaries of our legislatures, and I suppose we have to overcome such things.

There is another first which I don't believe has been highlighted. We have had several technical committees in other than the Hudson area, where we have had a Federal responsibility. For the first time, in dealing with the New York State people, we have been able, and with full confidence, to have a State employee as the chairman of the committee, although this is really a Federal responsibility. If the report didn't pan out or work out, the Federal Government would nevertheless have been responsible for it. This indeed shows how far we may

have come in this area of State-Federal relationships.

I know the Governor has many commitments and may want to leave, and I know what happens when he does leave, as we have had this before.

We will recess for ten minutes, because for the next ten minutes the most interesting part of the day will probably be going on outside of this room.

Thank you very much for coming, Governor.

(Whereupon a recess was had.)

MR. STEIN: May we reconvene?

Before we go on, I should indicate that all the charts you have will be reproduced in black and white. I know we get some pretty colored charts. If anyone uses a chart or any diagram and refers to it, try not to refer to colors, because when someone reads the transcript, it won't have too much meaning.

At this point we would like to call on Mr. Emil Frankel, who is representing Senator Jacob Javits.

STATEMENT OF EMIL FRANKEL, ON BEHALF OF
THE HONORABLE JACOB K. JAVITS, UNITED
STATES SENATOR FROM THE STATE OF NEW YORK

MR. FRANKEL: Mr. Stein, distinguished Conferees,

E. Frankel

and Guests:

I want to thank you for this opportunity to appear here to speak on behalf of Senator Jacob Javits of New York.

The Senator, as you all know, has been for a long time deeply interested and concerned about the problem and the challenge of water pollution and pollution abatement in the Hudson River.

The Hudson, of course, is the overwhelming environmental feature of New York State, a portion of New Jersey, and certainly is one of the largest metropolitan areas, or is the largest metropolitan area in the country.

The Hudson can be and has been a source of many great problems, but it also holds out a tremendous promise. It holds out the promise of a very rich commercial recreational and esthetic contribution to this area of the country.

Senator Javits has been deeply impressed by the initiative shown by the States, and is very proud of the initiative shown by his own State of New York, and he is concerned that the Federal Government now meet its promises to the States and to local agencies in this area of water pollution abatement.

It is time now for the Federal Government to make good on the promises which were implicit in the authorizing

E. Frankel

legislation, more particularly most recently the Federal Water Pollution Control Act.

As you know, there is now pending in the Senate appropriations for water pollution abatement. It is the opinion of Senator Javits that this appropriation is not adequate, and he regards it the obligation of Congress to make this appropriation adequate.

Accordingly, Senator Javits, a few days ago, sent a letter to all the members of the Senate Appropriations Subcommittee on Public Works, and I am going to read some excerpts from that letter. I think that will probably be the best thing to give you some indication of his feeling about this appropriation.

"Appropriations recently passed by the House of Representatives for the construction of treatment facilities under the 1966 Clean Waters Restoration Act and earlier related laws are clearly inadequate to meet the urgent and growing problem of water pollution.

"Approximately \$450,000,000 was authorized under the various water pollution programs. The Administration requested an appropriation of \$200,000,000,"

which is the figure that was approved by the House of

E. Frankel

Representatives, and the figure is now pending before the Senate Appropriations Committee.

"I believe that the Senate needs substantially to increase this appropriation for water treatment facilities. The gravity of this problem demands a more adequate response on the part of the Congress, a response that cannot be further delayed.

"In particular, it must be emphasized that an appropriation of the present size would be grossly unfair to those States which have in good faith undertaken programs of pollution abatement. The State of New York has just initiated a pollution abatement program of enormous proportions. Recently, calculations indicate that New York would be entitled to \$575,000,000 based on maximum Federal participation under existing legislation. However, New York's share of the proposed \$200,000,000 passed by the House of Representatives would be less than \$20,000,000.

"Such an appropriation will increase tremendously New York's responsibility for prefinancing the Federal share."

Which I believe Governor Rockefeller so clearly pointed out and was so graphically displayed by the charts he showed.

E. Frankel

"The effect of the passage of the present appropriation without increase can only be to cause a slowdown of pollution abatement efforts on the State and local levels.

"Water pollution is a critical problem, a problem which requires an expensive answer. Many States, including my own of New York, have shown the determination to do their share. I believe the Federal Government must now show its willingness to assume some of the burden.

"I know of no way in which the Congress can more effectively illustrate that determination than by increasing the appropriation for water pollution abatement facilities contained in the bill pending before you."

Senator Javits intends to fight as hard as he can for an increase in this appropriation for a determination to make sure that the Federal Government and the Congress meet its share of the tremendous burden of pollution abatement of the Hudson River and other rivers and waters in New York and this area of the country.

I can assure you of his continuing effort and his continuing determination to be of assistance to all of you in your efforts.

E. Frankel

Thank you very much.

MR. STEIN: Thank you.

Now may we hear from Mr. Robert Green, the representative of Senator Robert F. Kennedy?

STATEMENT OF ROBERT GREEN ON BEHALF OF THE
HONORABLE ROBERT F. KENNEDY, UNITED STATES
SENATOR FROM THE STATE OF NEW YORK

MR. GREEN: Mr. Stein, Conferees, Ladies and
Gentlemen:

Let me first express Senator Kennedy's regrets and apologies for not being here. He had fully intended to come, and it was not until early this morning that he found he had to be on the Floor of the Senate today for a vote.

I was asked at the last minute to read this to you so that you would have the benefit of his thoughts.

I will now, if I may, read you his statement.

More than 370 years ago this month, Henry Hudson and his crew sailed his ship the Half Moon through the Narrows and up the Hudson River to Albany. Hudson's first mate, Robert Juet, wrote in his log, "This is a very good land to fall with and a pleasant land to see." Standing off what is now Riverside Drive, "they brought (a) great store of very

R. Green

good oysters aboard," something that has not been done since at least 1921, when the shellfish areas of the Hudson up to Tarrytown were condemned.

Hudson continued up the river as far as Albany, commenting on the abundance of fish, fir, timberland, cultivatable land, game and fruit. The Hudson River Valley was rich beyond comparison.

Today, the Hudson River is still rich beyond comparison. More than 12.3 million people now live on its banks. The sinews of industry are found in the New York Metropolitan area, on the Jersey shore, and in the cities that stretch along its banks. Great centers of learning such as Columbia University, Vassar College, and branches of the State University of New York are within sight of its waters. And hundreds of parks and recreation facilities -- Riverside Park, Fort Washington Park, Palisades Interstate Park and Nyack Beach Park -- are located on its banks and provide recreation for its cities and towns. Hudson and Juet would surely be awed by these changes.

One change they would not welcome and would be unable to explain or understand is the contamination of the water in the river. Instead of being greeted by the sweet smell drifting out from the land, they would smell the untreated sewage from millions of people that is discharged

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into the Hudson. They would find few fish and fewer shellfish as they mounted the river. For industrial civilization as we know it has taken its toll of our waterways.

Two years ago, at the First Conference on the Pollution of the Hudson, I described the Hudson River as an open sewer. That description, unfortunately, still stands, even though we agreed at the first session of this conference on certain solutions that should be instituted according to a schedule. Both New York State and New Jersey agreed that all municipalities and industries would provide secondary treatment for their wastes. And they agreed that they would start construction of their treatment facilities by July 1, 1967 -- two months ago. At this time I would like to review the progress that we have made in meeting this schedule.

Since the first session of this conference major new State and Federal Water Pollution Assistance Programs have been enacted. The citizens of New York ratified the Clean Waters Bond Amendment authorizing the expenditure of \$1.7 billion for the construction of water pollution treatment facilities. Under this program, New York will pay 30 percent of the cost of constructing new facilities. New Jersey might take notice.

And since the first session, Congress has passed a strengthened Water Pollution Control Program that will

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provide \$6 billion to States for the construction of water pollution treatment facilities. Under this program, the Federal Government can provide up to 55 percent of the cost of new treatment facilities. Both of these programs are designed to reduce the high cost of pollution control to municipalities struggling with this problem -- local communities in New York will only have to pay 15 percent of the cost of new treatment facilities.

But despite the great strides made in State and Federal assistance, the timetable established at the first conference is not being met. The new treatment facilities agreed upon two years ago were not all under construction by July 1 of this year, and the date when the river will again be usable for recreation and other purposes has been postponed accordingly.

A number of cities -- Newburgh, Poughkeepsie, and Peekskill -- have filed construction plans with the State Department of Health, but they have not yet begun construction. Others, such as Bayonne, Hoboken and North Bergen, have taken the intermediate steps of installing chlorination devices, a useful step, but one which is inadequate for the long run. Still other areas, such as the Passaic Valley Sewage Commission, have filed statements of their intent to comply with the standard, but have not begun to comply in any respect as

R. Green

of yet.

Similarly, a number of industrial plants have taken steps to insure that their wastes receive the necessary secondary treatment. For example, the American Felt Company at New Windsor, New York, employs 425 people, and discharges the color from its fabric processing and human wastes into the Hudson. It has made an arrangement with the New Windsor Municipal Plant to have these wastes treated. And the Chevrolet Division of General Motors at Tarrytown will send its wastes to the Tarrytown Municipal Treatment Plant.

But other plants have not yet made provisions to treat their pollution. Their discharges continue to foul the waters of the Hudson. Clearly, then, the response of our cities and some of our industry has not been adequate. The political leaders, the business and industrial leaders, and the interested citizens of communities bordering on the Hudson must now show that they can meet the challenge of 20th Century life -- I urge them to do so.

No single city has a greater impact on pollution in the Hudson than New York. The wastes of more than 1.5 million people on Manhattan's West Side now pass directly into the Hudson -- a solution acceptable in the 19th Century, but not today. New York City has agreed to provide treatment facilities that will handle 310 million gallons of waste

R. Green

coming from downtown Manhattan, the Lower East Side, and Brooklyn. The opening of the plant is a major step in cleaning up the Hudson and New York Harbor -- it is tangible proof of our resolve to get the job done.

Unfortunately, New York City is not as far along with its plans to treat wastes from Upper Manhattan and the Bronx. New York has designed a North River plant to be located on the East Shore of the Hudson at 145th Street. This plant is designed to process 220 million gallons of wastes per day, the product of over one million people. It will cost a total of \$198 million to construct this plant and its interceptor sewer. But it will not provide secondary treatment -- only intermediate treatment. The design now calls for the removal of only 60 to 65 percent of the wastes. The commonly accepted standard for secondary treatment is 90 to 95 percent.

Even more disturbing is the fact that the proposed North River plant is not designed to facilitate further expansion so that the prescribed level of treatment can be reached at a later date. Instead, New York City is redefining the secondary treatment level previously recommended by this conference as removal of 60 to 65 percent of the wastes it processes. If this standard were applied to all communities along the Hudson, we would have to deal with the equivalent of raw wastes of 5 million people rather than half a million

R. Green

people. This is not an acceptable solution.

I therefore recommend that New York State and the Federal Water Pollution Control Administration reject New York City's plan for the North River plant and work with the city in developing alternatives.

Perhaps the design of the proposed plan can be changed, and several decks added so that a second stage of construction would raise the level to the required 90 percent. Or perhaps two plants are needed, one at 145th Street and one at the railroad yard at 65th Street or elsewhere. If design problems are believed to be especially difficult or time-consuming, engineering assistance can be provided by the Federal Government. The main point is that we need secondary treatment for Manhattan's West Side, and there are ways in which it can be provided.

The difficulties which have arisen in New York are mirrored in New Jersey. The Passaic Valley Sewage Commission, serving a population of 1 million, is still in the process of developing primary treatment facilities for the wastes in its area. And New Jersey's water quality standards for the Hudson and Raritan Rivers have yet to be approved by the Federal Water Pollution Control Administration -- a step necessary in order to qualify for 55 percent instead of 30 percent Federal assistance.

R. Green

Nor is the Federal Government without fault in regard to the present situation.

The biggest problem is that of appropriations for the Federal Water Pollution Control Program. Although last year's water pollution control bill authorized a total of \$6 billion over five years, this year's proposed budget is short of the authorized total by almost half. The Executive Budget contained a total of \$250 million against an authorized total of \$450 million and the House committee has accepted this level. I do not think we can afford to be short-changed in this manner. Local plans are based on the level of Federal assistance authorized last year. Municipalities and States have been called upon to take action and many of them have responded. I think it is only fair that the Federal Government live up to its share of the bargain.

Another problem on which I believe the Federal Government should take action is that of the construction of collection sewers. Current Federal and State assistance grants cover part of the cost of interceptor sewers and treatment plants. But the cost of collection sewers -- the capillaries of a sewage system -- as opposed to the arterial interceptor sewers are borne almost solely by the local community. And collection sewers often cost 50 percent of a total system -- a heavy load for a community to bear. The

R. Green

Department of Housing and Urban Development does have a small program under which it can pay up to half of the cost of a collection sewer system, but there is a backlog of over \$1 billion in applications for this assistance.

This situation has a direct effect on the Hudson. Rockland County has designed a comprehensive sewage treatment plan by which secondary treatment will be provided. A local bond issue has been passed, and a treatment plant has been started. But while two communities in the county have been designated for Federal assistance to help construction collection sewers, another, Stoney Point, has not, and probably will not be in the future because of the shortage of Federal funds. This situation is unfair. It is one we can correct by either appropriating more funds for HUD or by transferring the program to the Federal Water Pollution Control Administration, so that other funds will be available.

In assessing the results of the first session of the conference, I think it is fair to say that we have made progress since we first concentrated on the Hudson River in September 1965. We have established our goals and we are beginning to take the necessary steps to realize them. Now that we meet again, let us remind ourselves of the importance of the task. Perhaps our most important goal is to improve recreation along the river and related ocean beaches.

R. Green

The last beaches along the Hudson were closed before the Second World War, and the Atlantic beaches of Staten Island and Brooklyn are partially polluted by wastes from the Hudson. Those who boat on the Hudson and those attracted to its banks from the hot streets of Manhattan or Jersey City find a sewer. We have vowed to change that and we will change it by the early 1970's. Our standards of civilization demand nothing less.

The struggle to clean up the Hudson is an example to other communities plagued by pollution on rivers and lakes throughout the country. These communities want proof that inadequate standards of pollution control can be workably replaced with standards in keeping with our modern urban society. We can give them that proof here on the Hudson. Let us again make this waterway the path of opportunity.

Thank you.

MR. STEIN: Thank you, Mr. Green.

Are there any comments or questions?

MR. METZLER: Mr. Chairman, I recognize that he has just read the statement and that Senator Kennedy was not able to be here today.

I wonder, however, if I might supplement the statement and then ask two or three questions, which I hope you might want to transmit to the Senator.

R. Green

First, did I understand that Senator Kennedy supports the funding of the full authorization under the 1966 Clean Waters Act as requested by the Governor and announced in Senator Javits' letter, if you will?

MR. GREEN: I wish I could give you an answer to some of these questions. What I will do, if I may, is take these questions down and take them up with the Senator right after this.

I am sure I can give them to him some time during the day, and try to get back to you with these answers.

MR. METZLER: It would be very helpful.

I hope you won't mind my asking this next question. It is not intended to be critical, but merely because the Federal funding is such a major problem, I think it is important that we all operate from the same basic figures.

The way I read the Water Pollution Control Act of 1966, there is quite a difference between the \$6 billion which he says is authorized over a five-year period and that in the Act. I believe the amount in the Act is \$3-1/2 billion rather than \$6 billion, and I would suggest, at least recalling the Senate's version, which certainly is better than the two bills from the standpoint of New York State in its construction grants, but I believe that figure is \$3-1/2 billion instead of \$6 billion.

R. Green

Thirdly, I would be interested in the availability of this engineering assistance from the Federal Government, because certainly one of the great shortages in getting a big program like this moving is an adequate amount of engineers.

The New York State Pure Waters Program, since the 1st of May, has added, on the basis of a nationwide recruiting effort, 43 new engineers, but still we do not have what we need.

I doubt if there are enough engineers or consultants in the City of New York or elsewhere to move as fast as we would like, so if there is assistance from the Federal Government, I would appreciate some further details on this a little later.

Thank you.

MR. STEIN: Are there any other comments or questions?

(No response.)

MR. STEIN: With both Senators from New York, we have always had strong supporters of this program. Both Senators have been very, very familiar with it.

I know Senator Kennedy in the past has been to numerous conferences of this kind, and has assiduously, as

R. Green

far as I can see, done his homework, as have the Governor and Senator Javits. They are all very sophisticated in this area.

I do think that money question of yours has been kind of taken care of. We can all agree that \$3-1/2 billion was the figure, and not 6. Six was the figure proposed by the Senate committee and by the Senate as being the amount needed to do the job, and that was changed.

Dr. Kandle?

DR. KANDLE: I would just like to have the record show that with regard to the matter of New Jersey's approval, the New Jersey plan I think is one that is going through the bureaucratic mill.

We are in no substantial difference with the Federal agency, but much more important is this matter of money, the implication being that it might make a difference if we were eligible for 55 percent; but the fact of the matter is that this year we may get 5.6 million dollars of Federal aid against \$60 million, so when you distribute that around, I don't see what difference it makes whether it is 33 or 55. It only makes a difference whether one or two people get more money, but from an overall point of view, the fact of the matter is that the Federal help is of the order of \$5.6 million out of 60 million, which the people are putting up

R. Green

under bond issue, less what the State is contributing, which in our State is, we think, a substantial contribution.

MR. STEIN: You know, I think the Governor and both Senators all agreed on one point, and that was the financing; but I wonder with relation to the financing, and particularly the Federal contribution to the financing, if we often lose sight of who the Congress is, just thinking that the Congress is something back in Washington.

I remember once dealing with an old professional in this business, whom Dwight will remember very well, Milt Adams in Michigan. In the early days we were talking about bringing a Federal lawsuit or his bringing a lawsuit against us, because Milt and Nick Olds, the Assistant Attorney General who handled this, loved to litigate and always litigated. Milt said, "You know, we don't have to litigate this. We have seventeen Congressmen and two Senators from Michigan, and," he said, "as long as we have those people in Washington, I think we can resolve the issue with the Federal Government."

When you begin talking in terms of the Congress, and who is the Congress or where do they come from, if you start adding up the New York and New Jersey delegations and then relate that to the availability of Federal funds, I think you are talking about one and the same people.

DR. KANDLE: One more comment, Mr. Chairman, if

I may.

I agree, of course, with what Chairman Murray Stein says, but I think, Murray, that the propaganda mill is a little bit different story, and I think the problem that we have is that the propaganda mill sounds like the Federal Government is trying to do a lot, whereas, in fact, they are not.

MR. STEIN: I don't know what group you are talking about in terms of "the propaganda mill." I will say, however, I think our program is doing a lot, although this seems to be contrary to public opinion. At least some people seem to think that they see me too often. The reason they see me is that on my desk all I get is material saying that we are not doing enough. On the other hand, if anyone thinks as I do and is saying we are doing a lot, I wish it would come to my attention.

Thank you very much for these statements.

With this, we will go on to the presentation of the States, the interstate agency and the Federal Government. We will allow the conferees to manage their own time on this.

First, we would like to call on Mr. Klashman for the Federal Government. Mr. Klashman?

MR. KLASHMAN: Thank you, Mr. Stein. I would like to first call Mr. Paul De Falco, Deputy Regional Director for the Federal Water Pollution Control Administration in the

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Northeast Region.

Mr. De Falco.

STATEMENT OF PAUL DE FALCO, JR., DEPUTY
REGIONAL DIRECTOR, NORTHEAST REGION,
FEDERAL WATER POLLUTION CONTROL ADMINISTRA-
TION, DEPARTMENT OF THE INTERIOR, METUCHEN,
NEW JERSEY

MR. DE FALCO: Mr. Chairman, Conferees, Ladies
and Gentlemen:

I am Paul De Falco, Jr., Deputy Regional Director
of the Northeast Region, Federal Water Pollution Control
Administration of the United States Department of the Interior.

At the first session of the conference, held on
September 28, 29 and 30, 1965, the conferees recommended,
unanimously, that "all discharge sources to the Hudson River
and its tributaries, whether public, Federal installations,
or industrial, shall receive a minimum of secondary treatment
or its equivalent and effective disinfection of the effluents
as required to protect water uses." And the Federal conferee
recommended a time schedule for the remedial program, requiring
that designs for remedial facilities be completed by January
1, 1967, financing arrangements be completed by April 1, 1967,

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construction started by July 1, 1967, construction be completed and plants placed into operation by January 1, 1970, with commensurate schedules for the interception and treatment of industrial wastes and wastes from Federal installations, with the proviso that existing schedules calling for earlier completion dates were to be met. Subsequently, the Secretary of the Department of Health, Education, and Welfare, approved the conference recommendations and requested the conferees to "take appropriate action" under their water pollution control programs and State local laws to assure that the recommendations of the conference were carried out in accordance with the timetable recommended by the Federal conferee.

On June 13 and 14 of this year a third session of the Raritan Bay conference was convened. In view of the close interrelationship of the waters of the Hudson area and the Raritan Bay area, I would like to summarize some of the pertinent agreements reached at that conference:

1. Pollution of the interstate waters of Raritan Bay and adjacent waters is occurring due to the discharge of inadequately treated municipal and industrial wastes.
2. Considerable progress has been made toward abating this pollution problem.

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3. Progress has not been more rapid because of the complexity of the discharges and the difficulties in dealing with controlling pollution in an estuarine system of waters such as exists in Raritan Bay.
4. Still more has to be done to abate pollution of the Raritan Bay area, even though most wastes in the area are now receiving treatment.
5. All wastes prior to discharge into waters covered by the conference, including the Raritan Bay, Arthur Kill, and the Raritan River System, shall be treated to a degree providing a minimum 80 percent reduction of biochemical oxygen demand at all times, including any four-hour period of a day when the strength of the wastes to be treated might be expected to exceed average conditions.
It is recognized that this will require a design of an average removal of 90 percent of biochemical oxygen demand.
6. Effective year-round effluent disinfection shall be provided at all municipal plants and all industrial plants with bacterial discharges.
7. Industrial treatment facilities to accomplish such reductions shall provide removals at least the

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equivalent of those required for municipal treatment plants.

And lastly, a schedule for remedial action was agreed to with all of the improvements to be in operation between 1967 and 1970, with the exception of the expansion of one plant which will be in operation in 1971 and one interceptor which will be completed in 1972.

Under the provisions of the Water Quality Act of 1965, the States of New York and New Jersey have submitted to the Secretary of the Interior water quality standards for the Hudson River and its tidal tributaries and a plan for the implementation of this program. The New York State submission was made by letter of June 7, 1967, to the Secretary, with supplemental material being submitted in the latter part of June. The standards were reviewed by the Federal Water Pollution Control Administration and accepted by the Secretary of the Interior on August 7, 1967. The New Jersey submission was received by the Regional Office in the latter part of June and is currently under review by the Administration.

I will refrain from reviewing the status of compliance with the provisions of the previous conference because I presume the State representatives will cover this in their presentations. However, I would like to review the status of the abatement program for Federal installations discharging

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into the conference area:

1. The Army Corps of Engineers installation at Troy Lock and Dam has installed electric incineration devices.
2. The Coast Guard installation at St. George Base is to be vacated during July 1968.
3. The Coast Guard Robins Reef Lighthouse Station has been automated.
4. The Public Health Service, Staten Island Marine Hospital is scheduled to connect to an interceptor to be built by New York City during 1970.
5. The Maritime Administration installation, Hudson Reserve Fleet, is preparing to install chemical toilets for use aboard ships.
6. The Navy installation at the shipyard in Brooklyn has closed a major portion of the base, with the east portion now going to the New York City system.
7. The General Services Administration Medical Supply Agency is completing an interceptor to the New York City system.
8. The U. S. Army Brooklyn Army Terminal has been closed.
9. The Coast Guard Governors Island Base is drawing up preliminary plans, due in December, for a force

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main to the New York City system to be completed in 1969.

10. The National Park Service installation, the Statue of Liberty, is scheduled to complete a force main to the Jersey City treatment plant in 1969.
11. The Coast Guard Governors Island Light is no longer manned.
12. The U. S. Army Military Academy at West Point has plans completed for secondary treatment for the entire base and is scheduled to advertise for bids in January 1968.
13. The Army Corps of Engineers Storehouse in Albany has been closed.
14. The Army Watervliet Arsenal has commenced construction of an industrial wastes treatment plant.
15. The Coast Guard North Brothers Highland Light is to be automated by January 1, 1969.
16. The Veterans Administration Hospital at Castle Point is completing final designs and the hospital at Montrose is also completing final design.
17. The U. S. Army Military Ocean Terminal at Bayonne now has studies under way to determine whether to join with the city or to build a new secondary

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treatment plant.

Thank you.

Are there any comments or questions?

(No response.)

MR. STEIN: I have some questions on the Federal installations. I think I have to ask these, because if one of the States gave these to us we would ask the questions. I don't know if we are specific enough, Paul.

First, let's go down to No. 5:

"The Maritime Administration installation, Hudson Reserve Fleet, is preparing to install chemical toilets for use aboard ships."

The question I have is when?

MR. DE FALCO: I understand that this is under way in the current fiscal year.

MR. STEIN: Largely, my questions are going to be directed to the same subject, and I would like to hold the record open for this detailed information, because I don't think that the States and the cities can be expected to come up with these plans and specifications, or a time schedule that we can check on if we do not provide the same thing for Federal installations. It is just inequitable, so I think we should do that.

The same comment applies to No. 6. I am not sure

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that is precise enough. It reads:

"The Navy installation at the shipyard in Brooklyn has closed a major portion of the base, with the east portion now going to the New York City system."

Does this assume that all the wastes from the Navy installation in Brooklyn are going into the city system and none are being discharged directly?

MR. DE FALCO: This is our understanding, sir.

MR. STEIN: Well, I think this should be put down.

I don't want to get into the legal matter of handling the waste in a municipal city system, but it is a question of whether this is going to prevent pollution or we are adding a waste load that is not being treated. We should get that indicated.

Now, going to No. 9, I think that is all right. There will be a force main for New York in 1967.

That will include all the wastes from Governor's Island?

MR. DE FALCO: Yes.

MR. STEIN: In other words, there are going to be no wastes that are going to be discharged directly once that force main is completed?

MR. DE FALCO: Yes, sir.

MR. STEIN: All right.

P. De Falco

When will the West Point plans be in operation and completed?

MR. DE FALCO: I don't have the detailed dates, but I would assume somewhere around early 1970, but I will provide the details.

MR. STEIN: I think that has to be put into the record.

MR. DE FALCO: Right.

MR. STEIN: The same thing applies to the Army Watervliet Arsenal.

MR. DE FALCO: Right.

MR. STEIN: The question here is, will this take care of all the wastes in the water at the Watervliet Arsenal? How about the domestic wastes? Is this adequate?

You should have the details on that.

MR. DE FALCO: Right.

MR. STEIN: The same type of question applies to the Veterans Administration Hospital at Castle Point. You say:

"The Veterans Administration Hospital at Castle Point is completing final designs and the Veterans Administration Hospital at Montrose is also completing final designs."

When are they going to advertise for bids? When are the plants going to be in operation?

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Then Paragraph 17 reads:

"The U. S. Army Military Ocean Terminal at Bayonne now has studies under way to determine whether to join with the city or to build a new secondary treatment plant."

First, when are they going to make this judgment?

Second, if they go it alone, we want a specific schedule.

MR. DE FALCO: All right.

MR. STEIN: Or we want a specific schedule now, even if they decide to go it alone, and all specifics.

May we have that within the next week or so?

MR. DE FALCO: Yes, sir.

MR. STEIN: Thank you.

Are there any other comments or questions?

(No response.)

MR. STEIN: If not, thank you very much.

MR. KLASHMAN: Thank you, Mr. De Falco.

I would like now to call on other Federal agencies.

First, I will call on Colonel R. T. Batson, District Engineer, United States Corps of Engineers, New York District.
Colonel Batson.

STATEMENT OF COLONEL R. T. BATSON, DISTRICT

ENGINEER, NEW YORK DISTRICT, CORPS OF ENGINEERS,

UNITED STATES ARMY

Additional Data on Status of Abatement Programs of Federal Installations
Discharging into the Lower Hudson River

Installation	Agency	Pollution Abatement Status
5 Hudson River Reserve Fleet	Maritime Adm.	Installing a waste water treatment device aboard tugs and headquarters barge servicing the installation.
6 Naval Shipyard, Brooklyn	Navy	Eastern portion tied into New York system (to Newtown Creek Plant). Western portion tentatively scheduled to tie into Red Hook Plant of New York City system.
7 Medical Supply Agency	GSA	Scheduled to complete interceptor to New York City. No firm date available.
14 Watervliet Arsenal	Army	Scheduled to complete connection for sanitary wastes to city by August, 1968.
Throgs Neck Light Station	Coast Guard	Decision whether to automate will be made in the near future. No firm date available.
16 V.A. Hospital, Castle Point	V.A.	Expect construction to commence during 1968 Fiscal Year.
V.A. Hospital, Montrose	V.A.	Expect construction to commence during 1968 Fiscal Year.
17 Bayonne Supply Depot	Army	Discussions with city are not more favorable, the depot will build its own secondary treatment plant. Final design should be completed during 1968 Fiscal Year. Construction should commence in 1969 Fiscal Year.
Quarant Station Roseton	CG	Agencies for connections cannot be obtained from New York City. City is now considering revision of present plans because of recent severe storm.

R. T. Batson

COLONEL BATSON: Mr. Stein and Gentlemen:

I am Colonel R. T. Batson, District Engineer of the New York District of the Corps of Engineers, United States Army. The District includes within its boundaries the watersheds of the Hudson River and the streams draining into the New York Harbor.

There are three general functions of the District which are pertinent to the problem of pollution of the Hudson River. I wish to acquaint you with our activities in these three functional areas.

First, as you know, the Corps of Engineers of the Department of the Army is designated by law as the Federal agency responsible for water resources planning and for construction and operation of Federal works for navigation, flood protection and beach erosion purposes. As a result of many broad studies which the District has made of the watersheds of the Hudson and the New York Harbor, we have developed and have available for your use much data.

In connection with sedimentation studies of the lower Hudson River, we have constructed a comprehensive model of the New York Harbor, including the Hudson River as far north as Hyde Park. This model has already been used for pollution distribution studies. Consideration is now being given to extending the model as far as the Federal navigation

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dam at Troy, New York, so that it may be made available for use by any agency in connection with water resource studies of the Hudson River. Considerable interest has been expressed by both State and Federal agencies in this extension.

There are a number of studies and projects of the District which are closely related to the pollution problem. These are being coordinated with all local and Federal agencies who are working in the water resources field.

Under Congressional authority, funds have been made available to the District for the collection and removal of drift. Several Corps of Engineers vessels are used to collect and dispose of floatable material and debris. Most of the collection activity is in the upper bay of the harbor where drift collects from the contributing waterways.

Pursuant to a Congressional resolution, the District is completing a study to determine the feasibility of eliminating the sources of drift and debris by removal and disposal of dilapidated structures and derelicts, estimated at about 10,000,000 cubic feet of material, along the shores of New York Harbor and its immediate tributary waters. Removal of the dilapidated structures and derelicts would eliminate a source of organic pollution from the harbor waters and the Lower Hudson River. A similar type of investigation is being initiated this fiscal year to determine

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the feasibility of eliminating sources of drift and debris from the entire Hudson River.

In addition, the Division Engineer, North Atlantic Division, Corps of Engineers, is currently conducting two studies of major significance in the matter of water pollution. The first of these is the North Atlantic Regional Water Resources Study covering all river basins draining into the Atlantic Ocean north of the Virginia-North Carolina State line, portions of Lake Champlain and the St. Lawrence River. This is one of the eighteen regions of the United States delineated in the Water Resources Council program of water resources studies covering the United States. The purpose of this study is to establish a framework or broad master plan to serve as a basis for future multipurpose water resource development in the area. This study is a joint effort of Federal agencies involved in the water resource development and those States whose interests are involved.

As a result of the recent unprecedented water drought over the northeastern seaboard of the Nation, Congress has authorized the Corps of Engineers to cooperate with all Federal, State and local agencies in preparing plans to meet the long-range water needs of the northeastern United States. These plans may include major reservoirs, conveyance facilities to transfer water between river basins and

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purification facilities to be constructed under Federal auspices with non-Federal participation. The area covered by this study is generally similar to the area covered by the previously mentioned framework study.

A second function of the District which relates to the water pollution problem is that of military construction at Army and Air Force bases in the area.

At this time, I was going to cite pretty much what Mr. De Falco was stating.

We do have some of this information I can give you.

We will give you the complete information on the completion date at West Point, probably 1970.

Next, the answer to your question as to Watervliet: It does take care of all the treatment.

We have recently, and only recently, taken over the construction activities at Bayonne from the Navy. I do not have this information to give to you now.

In addition, all vessels that are operated by the New York District have been or are being equipped with chlorinators except those which are being retired this fiscal year.

The third function of the District pertinent to your water pollution problem is that of enforcement of certain Federal statutes developed to assure freedom of our waterways

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for navigation.

The most general law associated with pollution, enforced by the Corps of Engineers, is Section 13 of the River and Harbor Act of 3 March 1899, known as the Refuse Act, which states in essence that it is unlawful to throw, discharge or deposit any refuse matter of any kind or description into navigable waters of the United States. In the broad sense under this statute water pollution is not unlawful unless it is injurious to navigation.

Since 1952, by an Act of Congress of 1888, as amended, I, as Supervisor of New York Harbor, seek to prevent obstructive and injurious deposits in the tidal water of New York Harbor and Long Island Sound of refuse such as dirt, ashes, cinders, mud, sand, dredgings, sludge, acid, or any other material of any kind other than that flowing from streets, sewers, and passing therefrom in liquid state.

The Oil Pollution Act of 1924, as amended by the Clean Water Restoration Act of 1966, prohibits the discharge of oil from any boat or vessel into or upon the navigable waters of the United States. The Clean Water Restoration Act contains four significant differences from the Act of 1924: (1) It transfers jurisdiction from the Secretary of the Army to the Secretary of the Interior (this was in turn delegated to the FWPCA); (2) in order to prosecute violators,

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it must be proved that the oil spill was caused by gross negligence or willful spilling; (3) it extends the 1924 Act from tidal waters to all navigable waters; (4) it requires that the violator clean up oil spills. Since it is difficult to prove "gross negligence" or "willful spilling," there are presently before the Congress bills which would remove the requirements that gross negligence or willful spilling be shown. In the meantime, oil pollution violations originating from boats or vessels are processed by the Secretary of the Army, in coordination with the FWPCA and the U. S. Coast Guard, under authority derived from Section 13 of the Act of 3 March 1899 which I previously mentioned.

To enforce these statutes, the New York District operates four patrol vessels and nine patrol cars. When a violation is observed or reported, it is present policy that we inform the violator of the statute that he is violating and for a first offense solicit compliance. If correction is not effected within a reasonable time, a report is forwarded to the appropriate U. S. Attorney or the Admiralty and Shipping Section of the U. S. Department of Justice with a request that legal action be taken against the offender. Since 1963, the Supervisor of New York Harbor has conducted 323 pollution investigations in its area of jurisdiction along the Hudson River, and has forwarded 142 requests for

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prosecution to the appropriate United States Attorney.

Since 1965 the U. S. Attorneys have levied fines totaling \$45,450 and various offenders have spent an estimated \$2,067,050 in correcting violations that the Supervisor of the Harbor has found.

As a part of the preventive program, we distribute notices of court fines to newspapers.

Again, under statutes originally enacted by Congress for the protection and preservation of navigable waters of the United States, the District, after appropriate public notice, investigation and study, issues permits authorizing work or construction, in, across and under navigable waterways. While formerly we concerned ourselves primarily with assuring the public rights of navigation and that no unreasonable obstruction to navigation would be created, we now seek to assure that recent statutes for the preservation of fish and wildlife resources and water quality control are also satisfied by exercising close coordination with local, State and Federal agencies having jurisdiction in these matters. Applications for permits for work in the Hudson River are also coordinated with the United States Department of the Interior under Public Law 89-605, and with the Hudson River Valley Commission.

In closing, I would like to reiterate that the

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Corps of Engineers fully understands the effort of the Federal Water Pollution Control Administration in this endeavor to restore the Hudson River to a high quality water resource, and within my authorities, full support will be furnished as necessary to accomplish this objective.

MR. STEIN: Thank you, Colonel.

Are there any comments or questions?

(No response.)

MR. STEIN: Thank you very much for your statement.

The Corps of Engineers, as you can appreciate, is our sister Federal agency in the field of water pollution control and water quality. As a matter of fact, we both go before the same committees in the Congress for our legislation, which is the Public Works Committee in both the House and the Senate. While we coordinate finally, I think we have a lot of committee members who ask us questions frequently to see that we do.

The Corps of Engineers and ourselves work, as you can appreciate, very closely on this matter. We are a specialty agency and they are largely a construction agency, and they have in their area, I would say, competence second to none.

Mr. Klashman?

MR. KLASHMAN: Thank you, Colonel Batson.

Next I will call on the United States Army Corps of Engineers Headquarters in Washington.

Are they represented, and, if so, do they wish to make a statement?

COLONEL BATSON: I represent them. No statement.

MR. KLASHMAN: What about the North Atlantic Division?

COLONEL BATSON: I represent them also.

MR. KLASHMAN: We would now like to call upon the National Park Service. Is either Mr. Schmidt or Mr. J. Monkoski here? If so, do you wish to make a statement?

MR. MONKOSKI: The National Park Service doesn't have a statement.

MR. KLASHMAN: All right.

Next I will call on the Geological Survey Albany office, Mr. Darmer.

MR. DARMER: We have no statement.

MR. KLASHMAN: Next I will call on the Bureau of Outdoor Recreation, Philadelphia office, Mr. B. O'Neill.

MR. O'NEILL: We have no statement.

MR. KLASHMAN: The General Services Administration, Mr. L. McCarren.

MR. MC CARREN: I do not have any statement, but I did have some questions I would like to ask a little bit

L. McCarren

later, when the question period comes.

MR. STEIN: There is no question period, so if you have your questions, unless you want to get on later, why don't you get up now and put them into the record? This would be a good time to do it.

MR. MC CARREN: I could mention a few things.

MR. STEIN: Why don't you come up and make your statement.

Let me again point out the procedure. Everyone will be heard, but we are not open to comments or questions from the floor. If we gave one person the privilege, we would have to do it for everyone. We would be here for perhaps a month. We try to give everyone an opportunity to come to the rostrum, make his comments and ask his questions and say anything he wishes.

STATEMENT OF L. MC CARREN, ON BEHALF OF
REGION II, GENERAL SERVICES ADMINISTRATION,
NEW YORK, NEW YORK

MR. MC CARREN: I represent Region II, New York City, General Services Administration.

I do not have a presentation at this time, but I have a few questions.

L. McCarren

The first question I have has reference to the talk about secondary treatment. Is there any real definition of secondary treatment that we can apply to construct equipment for that type of treatment?

We have a few Federal depots. One is at Binghamton, New York, and they have a problem up there which was brought to our attention.

They have what years ago in the Corps of Engineers -- I used to be with them myself -- they had Imhoff tanks for different military bases that did not have what you would call secondary treatment. It also had chlorinating equipment attached to it. This Binghamton depot has a similar type of plant.

The discharge or effluent from the plant is carried out about three-quarters of a mile from the depot and then comes into the river.

Now, I would like to find out if anybody has any good design or piece of equipment that we could use there.

Up there, in certain areas, the Health Department and industry have mentioned installing septic tanks. If you install a septic tank with a dousing chamber, it could be of some help, but the effluent would still have to be checked to find out how close we come to cutting out the pollution or, putting it another way, cutting down the pollution.

L. McCarren

Then we have a big problem, which Mr. De Falco knows about, at Staten Island. He mentioned that.

We have a new building going up, the Social Security Building, in Watertown, New York, and we were approached on that also.

There is one thing I would like to bring up about new construction. When you start new construction, I would suggest -- I may be wrong, but I am going to suggest it anyhow -- that your sanitary lines and your storm drain lines, area drains, are brought out separately outside of the building to the property line.

When you come into some of these towns or cities or villages, whatever you want to call them, they have combined sewers. In some of these areas, they are also changing that sewer system where they have sanitary sewers and storm sewers, when they put these new sewer systems in.

The engineer up in Watertown told me that under a certain type of regulation up there, he would tie in the separate sewer systems as they come in. I thought that was a good thing, and we put that in our new standards for specifications from the General Services Administration, regardless of how small or large a project is.

I think that is about as far as we can go.

MR. STEIN: Thank you.

L. McCarren

MR. MC CARREN: I am sorry I have no presentation.

MR. STEIN: Will you wait for comments or questions, Mr. McCarren?

What we are getting here is the face of water pollution control, and I am going to throw this open to these people for comments and answers and questions with you soon. I do think that you asked some very pertinent questions.

You know, sometimes I go to these long-haired think sessions, research meetings. They keep raising the question of what do we mean by tertiary treatment, and I tell those professionals we still have a problem of what do we mean by secondary treatment.

You are talking about tertiary, and what do we do right now.

I do agree with you on this separation business. We have suggested that in many, many places.

As a matter of fact, this was not your agency, but we had a big public battle in a midwestern city, where the Federal Government was cleaning a big area for urban renewal. This was a university we were helping install. We did not make provision for separation of the sewers while we were doing it, or, at least, our other agency didn't, and there was a big public controversy, but we took the position, the same one that you did, and I am very glad to see that you have

L. McCarren

that because we move ahead as we can.

This was supported by the Government Operations Committee, which got interested in this problem, because this was an interdepartmental operation, and HUD has now adopted that policy for all urban renewal operations.

I don't know how far this goes, but, at least, the questions that you have asked are really the hard questions in pollution control, and your suggestion about separation when we have new buildings is one we sure have to go along with. By the way, this is a technical question.

Are there any other comments or questions?

MR. KLASHMAN: Mr. McCarren, first, carrying out the Executive Order. 11-288, I thought we had been in touch with you to discuss this matter. We very definitely were talking, when we were, about secondary treatment, about 90 percent removal.

Mr. Sutton, who is chief of our Facilities Program in the region and under whom the Federal installations program lies in the region, is here. Mr. Sutton, will you stand up?

(Mr. Sutton arose.)

MR. KLASHMAN: Mr. Sutton will be very happy to discuss the details of this with you, Mr. McCarren.

MR. MC CARREN: Good. Thank you, sir.

L. McCarren

MR. KLASHMAN: And work with you in helping solve these problems.

MR. MC CARREN: Thank you, sir.

MR. KLASHMAN: Thank you very much.

MR. STEIN: Are there any other comments or questions?

(No response.)

MR. STEIN: If not, thank you very much.

Mr. Klashman?

MR. KLASHMAN: Is Mr. G. Fillmore of the Military Academy at West Point here?

MR. FILLMORE: Yes. We have no prepared statement.

MR. KLASHMAN: The Coast and Geodetic Survey, New York. Captain Popper?

CAPTAIN POPPER: I have no statement.

MR. KLASHMAN: The Third Naval District of New York, Mr. Field?

MR. FIELD: We have no statement.

MR. KLASHMAN: The Public Health Service, New York, T. Hushower?

MR. HUSHOWER: We had presented a formal statement at the first conference, but have no subsequent information.

MR. KLASHMAN: The Bureau of Public Roads, Trenton?

(No response.)

MR. KLASHMAN: The Small Business Administration,
Mr. A. Tayne?

MR. TAYNE: We have no statement.

MR. KLASHMAN: The Federal Highway Administration,
Delmar, New York, Mr. Davis?

MR. DAVIS: I have no statement. I also represent
the Bureau of Public Roads.

MR. KLASHMAN: Thank you, Mr. Davis.

The Housing and Urban Development, New York, Mr.
B. P. Robinson?

MR. ROBINSON: No statement.

MR. KLASHMAN: The Coast Guard, New York, Lieutenant
Commander H. C. Wentworth?

COMMANDER WENTWORTH: No statement.

MR. KLASHMAN: The Federal Power Commission, New
York, Mr. Monaco?

MR. GROBE: I am Raymond Grobe. I represent Mr.
Monaco, and we have no statement.

MR. KLASHMAN: The Veterans Administration
Hospital, Castle Point, Mr. Halley?

MR. HALLEY: No comments.

MR. KLASHMAN: Are there any other Federal agencies
here who wish to be recognized or wish to make a statement?

J. E. McShane

MR. MC SHANE: Yes.

MR. KLASHMAN: Will you come up, please?

STATEMENT OF JAMES E. MC SHANE, DISTRICT
EMERGENCY PLANNING OFFICER, MARITIME AD-
MINISTRATION, UNITED STATES DEPARTMENT
OF COMMERCE, NEW YORK, NEW YORK

MR. MC SHANE: I am Jim McShane, the Emergency Planning Office for the Maritime Administration, Department of Commerce.

There is one type of pollution, which may or may not fit into this picture, oil spillage, coming back to the situation such as the Torrey Canyon in Europe, where they are building and constructing large tankers, and it is always possible.

Obviously, we do not anticipate anybody spilling oil purposely on the water on a major spillage, but it is possible, and also it is possible that such a spillage would cause an emergency plan for the ports to be activated, which comes under the Maritime Administration, Emergency Port Planning.

This does not come in the vein of the normal contamination of water, but, at least, in design now, they have

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one ship that is half a million tons. Such a ship, if it were foundered, would really create havoc along the Atlantic Seaboard if it foundered in the wrong place.

I just bring this up so that it is entered in the record that the Maritime Administration has a primary interest in emergency planning if such a thing did happen. Obviously, it does not come within the normal, every-day pollution problem.

Thank you.

MR. STEIN: This is a concern of ours. As a matter of fact, I just saw Mr. Rademacher come in -- I guess our oil man just left -- but he has been working with the Maritime Administration before and since the Torrey Canyon case, where there were problems like this.

We heard Colonel Batson talk about the Oil Pollution Act. We are still governed by the Act. Like most of the engineers, he speaks very quietly and competently.

His indication of what we would have to do now to move under the Oil Pollution Act is clearly an understatement, but if there are any lawyers in the house, you know how many cases we could win when the test is either gross negligence or willful discharge. There are not very many.

The problem that we have is if we keep letting

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these tankers get any bigger, and I don't know if many of you have seen any of these new oil tankers, when one of them goes you are bound to have a major catastrophe.

How big are these big tankers now?

MR. MC SHANE: Well, they have just about reached their peak, with few exceptions.

There is one mammoth ship to be built in Japan for half a million tons. That will be the biggest ship in the world, actually, as far as I know.

I am not quoting statistics on this, except that it is under design, it is to be built in Japan, and if it is built, that will very definitely be the largest cargo-type ship or bulk carrier, but if such a ship were foundered, it would create a catastrophe.

I would like to make one point clear on this. Colonel Batson was talking about the Corps of Engineers and the law which makes them responsible for oil spillages.

There is an Executive Order of the President, 10-999, which authorizes the Maritime Administration, or requires the Maritime Administration, to prepare emergency plans for all of the ports on the seaboard of the East, West, and so on.

Now, if they are responsible for emergency planning and the activation of emergency planning for the ports, a

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major spillage could be considered an emergency, which would activate some of these plans.

This is different than what Colonel Batson was talking about. While he is a part of it, again, emergency planning in a port is a responsibility of the Department of Commerce Maritime Administration, and not just alone for the Corps of Engineers.

MR. STEIN: Yes. I think that is understood.

As a matter of fact, I know Mr. Rademacher has been working on the report to the President on that.

Mr. Rademacher, haven't you been working on the report to the President on that? Do you want to come up, or can't you talk about it?

MR. RADEMACHER: I cannot talk about it at this point.

MR. STEIN: All right, but I do know we were preparing a report on that.

Once you get one of these big spillages, you have to recognize that we are going to need all the resources of government, of the Corps of Engineers, the Maritime Administration, the State if we can get them, and the Federal Government in all departments, to work this out. What we are trying to do is design a procedure that can work.

The notion was that after the Torrey Canyon broke

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up, it was not a question so much of jurisdiction, but who in the world had an answer or a feasible solution they could put into effect, and who was going to make that determination.

I am pretty sure of the people we have working on this, the Maritime Administration is one of the key, if not the key, Federal agencies in working this out with the other departments.

MR. KLASHMAN: Thank you very much.

We can assure you that we in the Federal Water Pollution Control Administration are anxious to work very closely with you in this area.

Are there any other Federal agencies here that want to be recognized?

(No response.)

MR. KLASHMAN: If not, Mr. Stein, this completes the presentation by the Federal Government.

MR. STEIN: Thank you.

If this completes the Federal presentation, I think we are just about at the right time. If we move fast, we probably can beat the crowds for lunch. We will reconvene at about 1:20 or 1:25.

We stand recessed for lunch.

(Whereupon, at 11:50 a.m., a luncheon recess was taken.)

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AFTERNOON SESSION

(1:30 p.m.)

MR. STEIN: May we reconvene?

Mr. Klashman, are the Federal presentations completed?

MR. KLASHMAN: Yes, Mr. Stein, the Federal presentations are completed.

MR. STEIN: I will now call on New Jersey. Dr. Kandle.

STATEMENT OF ROSCOE P. KANDLE, M. D.,
CONFEREE AND COMMISSIONER, NEW JERSEY
STATE DEPARTMENT OF HEALTH, TRENTON,
NEW JERSEY

DR. KANDLE: Good afternoon, friends.

My name is Roscoe P. Kandle. I am the Commissioner of the New Jersey State Department of Health and I present this statement as the New Jersey conferee at this conference.

We are pleased to report the substantial progress in New York -- in New Jersey (Laughter). That's a bad beginning, isn't it? I was complaining because they destroyed the old oyster house to which I had been addicted.

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We are glad also to participate in this constructive examination of progress and problems in avoiding pollution of the interstate waters of the Hudson River and its tributaries. It is the policy of the administration of New Jersey and of Governor Richard J. Hughes to pursue the abatement and control of water pollution with all possible vigor and all the resources at our command. It is my responsibility and my intention as the State Commissioner of Health to fulfill this policy.

A number of things have happened in New Jersey recently which reflect the seriousness of our intention. New Jersey has enacted statutes which provide, No. 1, for State grants for the study of the feasibility of regional -- and this is the thing we are stressing most -- collection and treatment systems; No. 2, loans essentially interest-free to defray the engineering costs of system design; and, thirdly, the granting of authority to the Department of Health to disapprove any waste treatment facility which is not a part of a logical regional system. We think that is a very great advancement. In the current session of the legislature two additional new statutes affecting water pollution have been adopted and signed into law. One provides that equipment and facilities whose primary purpose is water pollution control are exempt from real and personal property tax. The

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other, hopefully, will add to the available supply of professional staff in water pollution control by offering fully funded undergraduate and graduate scholarships, dealing with recruitment of young men and women into this field who will come into water pollution control.

Most significant, however, the latter statute also puts New Jersey in the construction grant business in a program compatible with the Federal grant system and appropriates funds to match this year's Federal appropriations.

If there should be larger amounts, I think New Jersey will be responsible and appropriate additional amounts, but we went this year on the amount of Federal moneys which we thought were likely to be available, and so far, unfortunately, we were right.

Our Department is remarkably increasing the size of its water pollution control staff in order to carry out its many responsibilities capably and without delay.

In February 1967 by my administrative order a new Division of Clean Air and Water was established. This Division is responsible for administering the Air Pollution Control Program, Solid Waste Disposal Program and the Water Pollution Control Program. We believe these three are inseparable. This reorganization increases our Department's administrative capability dealing effectively with these interconnected environmental pollution control functions,

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with integrated standards.

In the fiscal year beginning July 1, 1967, funds were appropriated to permit us to augment our current staff of 42 with 24 additional positions. In the year beginning July 1, 1968, we expect funds which will permit the development of a staff of 100 in the State's Water Pollution Control Program.

In the same year we hopefully anticipate an appropriation of substantial funds to permit New Jersey to establish a network of continuous monitoring of the water quality of its streams. This system, if installed, would tie in to the data handling facility already in operation as a part of New Jersey's air pollution monitoring control network.

As a part of New Jersey's total enforcement activity, water quality standards have been defined and established; and all of our streams and all our drainage basins have been classified in accordance with these standards.

To assure that these standards are, in fact, being achieved, the Department has, since April of this year, issued 113 orders to municipalities and other entities operating treatment plants which are now substandard by these new standards. In the next 60 days we expect to issue another 70 orders of the same type. It is our intention to see to it that the recipients of these orders comply with their

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requirements. A number of recent court actions, including several within the scope of today's conference, testify to our willingness to litigate when no other course of action will achieve compliance.

With regard to the specific area under consideration today:

A public hearing was held in Trenton on February 15, 1966, at which time the proposed classification regulations for the Hudson River were discussed by the public and representatives of industry and other interested persons. The hearing was conducted in conformity with the laws of New Jersey. Effective May 16, 1966, the Department promulgated regulations entitled "Classification of the Surface Waters of the Hudson River - Arthur Kill and Tributaries," the classification for the entire reach of the Hudson River bordering New Jersey was specified as TW-2. The definition of TW-2 waters is as follows: "Tidal surface waters having limited recreational value and accordingly not acceptable for fishing and bathing but suitable for fish survival although perhaps not suitable for fish propagation. These waters shall not be an odor nuisance and shall not cause damage to pleasure craft having occasion to traverse the waters."

The same public hearing process was utilized in establishing the surface water classification for Newark Bay

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at TW-3. This classification is defined as: "Tidal surface waters used primarily for navigation, not recreation. These waters, although not expected to be used for fishing, shall provide for fish survival. These waters shall not be an odor nuisance and shall not cause damage to pleasure craft traversing them."

Implementation of the classification program to meet the standards of water quality established as outlined herewith is a very simple and direct procedure. Employing the regulations establishing classifications and the procedures established by law, legal orders were issued in August 1966 against all of the municipal waste water treatment facilities discharging effluents into the Hudson River. These orders took the form of recognition of the long-standing situations and contained no detailed timetable for compliance. They carried an effective date generally of approximately 100 days after the date of issue. This had the effect of bringing the defendants to the conference table to establish a reasonable timetable for actions.

These orders recently have been supplanted by "Amended Orders" in April 1967 establishing timetables for appropriate interim action including a work performance schedule leading to the completion of indicated construction. The amended orders require that the treatment facilities be

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designed to provide at all times -- at all times -- a minimum of 80 percent reduction in biochemical oxygen demand of the waste water received at the said treatment facilities. A typical amended order is attached to this statement along with a tabulation listing the identity of those against whom orders incorporating timetables have been issued, and this, Mr. Chairman, is part of the record.

MR. STEIN: Without objection, this will be entered at this point, as if read.

(The typical Amended Order is as follows:

WHEREAS, the State Department of Health of the State of New Jersey, on April 27, 1965, addressed a letter to the Mayor and Board of Commissioners of the Town of West New York, in the County of Hudson and the State of New Jersey, stating "TAKE NOTICE, that the New Jersey State Department of Health in cooperation with the Interstate Sanitation Commission has determined, as a further step in the promotion of the quality of the surface waters of this State, effective post-chlorination of the effluents of all sewage treatment plants discharging directly into the waters of the Interstate Sanitation Commission District must be effected on or before May 15, 1967. Thereafter, effective chlorination is to be required continuously each year from May 15 to September 15. Control over the chlorination operation will be effected primarily by

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the maintenance of a positive chlorine residual of not less than 1.0 part per million. The requirements will be intensified as found necessary in order to maintain receiving water quality criteria deemed necessary by the New Jersey State Department of Health and the Interstate Sanitation Commission," and

WHEREAS, the State Department of Health of the State of New Jersey, on August 9, 1966, issued an Order to the Town of West New York, in the County of Hudson and the State of New Jersey, requiring that the said Town, prior to December 1, 1966, cease the discharge of improperly, inadequately and insufficiently treated sewage into the waters of the Hudson River, being waters of this State, and alter, add to or improve the sewage treatment plant operated by the Town of West New York in order that the sewage received therein shall be cared for, treated and disposed of, and the effluent discharged into the said waters in a manner approved by the State Department of Health of the State of New Jersey, and in order that the treatment and disposal of said effluent shall meet the applicable standards of water quality prescribed by regulations of the State Department of Health entitled "Classification of the Surface Waters of the Hudson River, Arthur Kill and Tributaries," effective May 16, 1966, and

WHEREAS, the Federal Water Pollution Control

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Administration of the United States Department of the Interior requires that Orders issued as aforesaid under the Water Pollution Control Plan of the State of New Jersey, which Plan is subject to review by and approval of the Federal Water Pollution Control Administration, include a timetable of significant events including the contemplated date for the completion of construction of sewage treatment projects, and

WHEREAS, it is incumbent upon the State Department of Health of the State of New Jersey in conformity with the nationwide water pollution control program of the Federal Water Pollution Control Administration to be specific as to the minimum degree of sewage treatment meeting the approval of the said State Department of Health,

THEREFORE, the State Department of Health of the State of New Jersey amends, in part, its Order of August 9, 1966, addressed to the Town of West New York, in the County of Hudson and the State of New Jersey, by deleting the following paragraph:

"NOTICE IS HEREBY GIVEN, by the State Department of Health of the State of New Jersey, pursuant to R. S. 58:12-2, to the Town of West New York, in the County of Hudson and State of New Jersey, requiring that the said Town of West New York must and shall, prior to December 1,

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1966, cease the discharge of improperly, inadequately and insufficiently treated sewage into the waters of the Hudson River, being waters of this State, and must alter, add to or improve the sewage treatment plant operated by the said Town of West New York in order that the sewage received therein shall be cared for, treated and disposed of and the effluent discharged into the said waters in a manner approved by the State Department of Health of the State of New Jersey, and in order that the treatment and disposal of said effluent shall meet the applicable standards of water quality prescribed by regulations of the State Department of Health entitled "Classification of the Surface Waters of the Hudson River, Arthur Kill and Tributaries," effective May 16, 1966."

and substituting in lieu thereof the following language:

NOTICE IS HEREBY GIVEN, by the State Department of Health of the State of New Jersey, pursuant to R. S. 58:12-2, to the Town of West New York, in the County of Hudson and the State of New Jersey, requiring that the said Town of West New York, must and shall, prior to October 30, 1970, cease the discharge of improperly, inadequately and insufficiently treated sewage into the waters of the Hudson River, being waters of this State,

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and must alter, add to or improve the sewage treatment plant operated by the Town of West New York, including sewage treatment units designed to provide at all times a minimum of 80 percent reduction in biochemical oxygen demand of the sewage received at the said sewage treatment plant, in order that the sewage received therein shall be cared for, treated and disposed of, and the effluent discharged into the said waters in a manner approved by the State Department of Health of the State of New Jersey, and in order that the treatment and disposal of said effluent shall meet the applicable standards of water quality prescribed by regulations of the State Department of Health entitled "Classification of the Surface Waters of the Hudson River, Arthur Kill and Tributaries," effective May 16, 1966, and in effecting abatement of pollution of the waters of this State within the time hereinabove provided, shall execute the following work performance schedule:

(1) Place in operation effective postchlorination equipment on or before May 15, 1967, and henceforth maintain continuously each year, from May 15 to September 15, a positive chlorine residual of not less than one part per million in the effluent discharged to the River;

(2) Complete a report upon the proposed basis of design of additions and alterations with review

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and approval of the same by the State Department of Health on or before October 1, 1967;

(3) Complete preparation of and secure review and approval of preliminary plans on or before April 1, 1968;

(4) Complete preparation of and secure review and approval of detailed contract plans and specifications on or before March 1, 1969;

(5) Award construction contracts on or before June 1, 1969;

(6) Complete construction on or before October 30, 1970.

STATE DEPARTMENT OF HEALTH OF THE STATE OF

NEW JERSEY

/s/ Richard J. Sullivan

Richard J. Sullivan, Director

Division of Clean Air and Water

Dated: April 4, 1967

* * *

Service of an Amended Order, of which the within is a copy, is herewith admitted this 10th day of April, A.D., 1967

/s/ Raymond F. Gabriel

TOWN CLERK

* * *

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DR. KANDLE: This tabulation shows the dates of important stages of development in each case. The list includes every municipal waste treatment plant which presently discharges into the Hudson River and Newark Bay.

The initial step in the work performance schedule required that chlorination be initiated by May 15, 1967, in accordance with a departmental directive dated April 27, 1965.

Follow-up investigations by the Department indicated that four of the seven waste water treatment facilities have initiated postchlorination. The three remaining waste water treatment plants are those of the Jersey City Sewerage Authority, Passaic Valley Sewerage Commissioners and the Town of West New York.

With respect to these three: Information which has been received indicates that postchlorination will be in operation at the Jersey City facility before May 15, 1968. The Department has already obtained a court order directing West New York to proceed with postchlorination.

We are appending, Mr. Chairman, another record which shows that we have instituted injunctive proceedings in the Superior Court to require the Passaic Valley Sewerage Commissioners to comply with our order.

May I offer to make that part of the record?

MR. STEIN: Yes, certainly. Without objection,

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that will be entered at this point.

(News release dated September 20, 1967, reads as follows:

TRENTON, SEPTEMBER 20...Superior Court Judge Nelson K. Mintz, Chancery Division, Essex County, sitting in Newark, yesterday, September 19, ordered the Passaic Valley Sewerage Commission to appear before him on October 13 to show cause why relief from pollution of State waters sought by the State Department of Health should not be granted.

The State Department of Health on April 27, 1965 placed the Commission on Notice to provide effective post chlorination of its effluent between May 15 and September 15 each year before being discharged into waters of the Interstate Sanitation Commission District, Upper New York Bay. This post chlorination was to be inaugurated by May 15, 1967.

On September 22, 1965, the State Department of Health gave a grant of \$20,000 to the Commission under the State Public Sanitary Sewerage Assistance Act of 1965 for a feasibility study of providing chlorination of sewage effluent from the Commission's treatment plant by May 15, 1967.

In a supplemental order dated March 31, 1967 the Commission was again ordered to place in operation effective post chlorination equipment on or before May 15, 1967 and henceforth to maintain continually each year from May 15 to September

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15 a positive chlorine residual of not less than one part per million in the effluent discharged into Upper New York Bay.

In the action brought by Deputy Attorney General Theodore Schwartz, the State Department of Health is now asking for immediate purchase and installation of the necessary post chlorination equipment so that such equipment can be placed in operation beginning May 15, 1968.

A recent inspection disclosed that the post chlorination has not yet been installed.)

* * *

MR. STEIN: While we are at this point, about how much chlorine will Passaic Valley have to have in order to have effective chlorination with their present kind of treatment?

DR. KANDLE: Do you want to answer that?

MR. ANTHONY RICIGLIANO: It is estimated at about 20 tons per day.

MR. STEIN: Thank you.

DR. KANDLE: Attached is a tabulation indicating the present status of postchlorination at all of the plants discharging into the Hudson River.

(The tabulation referred to is as follows:)

NEW JERSEY STATE DEPARTMENT OF HEALTH

HUDSON RIVER BASIN

PERFORMANCE SCHEDULE UNDER CURRENT ORDERS

	Place in operation effective postchlorination	Report on Design	Preliminary Plan	Final Plans	Award Construction Contracts	Complete Construction	Remarks
Bayonne City	5/15/67	10/1/67	4/1/68	3/1/69	6/1/69	10/30/70	
Edgewater Borough	5/15/67	10/1/67	4/1/68	3/1/69	6/1/69	10/30/70	
Hoboken City	5/15/67	10/1/67	4/1/68	3/1/69	6/1/69	10/30/70	
Jersey City Sewerage Authority (two plants)	5/15/67	10/1/67	4/1/68	3/1/69	6/1/69	10/30/70	
North Bergen Township (Woodcliff Section)	*	2/1/68	7/1/68	5/1/69	8/1/69	10/30/70	
Passaic Valley Sewerage Commissioners	5/15/67	10/1/67	4/1/68	3/1/69	6/1/69	10/30/70	
West New York Town	5/15/67	10/1/67	4/1/68	3/1/69	6/1/69	10/30/70	
Kearny	**	4/30/68	10/30/68	6/1/69	9/1/69	10/30/70	

* Postchlorination was initiated in accordance with a Departmental directive dated April 27, 1965.

** Order will be amended to require effective postchlorination by May 15, 1968.

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DR. KANDLE: The State Department of Health, after making an investigation of the operation of the West New York treatment facilities, filed a complaint in the Superior Court of New Jersey in the County of Hudson on July 7, 1967, charging that the treatment plant was being operated ineffectively and improperly, in violation of the permit issued by this Department. The complaint also charged that the town had not complied with the first step in the amended order which required effective postchlorination by May 15, 1967. In its complaint the Department asked the court to order the town to repair all of the defective facilities in the waste water treatment plant, to remove all sludge in the plant and to continue to remove all of the sludge until the defective equipment is repaired. The Department also demanded that the town immediately eliminate noxious odors emanating from the plant and to install immediately the necessary post-chlorination equipment.

The Superior Court Judge ordered the Town of West New York to appear before him on July 13 to show cause why demands for relief in the Department's complaint should not be granted.

The court reacted favorably to the Department's demands with an unprecedented action in water pollution control in New Jersey.

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The Superior Court Judge placed the treatment plant under the jurisdiction of the court and appointed an engineer from the State Department of Health as the receiver to make sure that orders of the court and injunctive relief demands by the Department of Health in its complaint are carried out.

A copy of the order handed down by the court is attached.

May I make that also part of the record?

MR. STEIN: Without objection, that will be entered as if read.

(The Order of the Superior Court of New Jersey reads as follows:

SUPERIOR COURT OF NEW JERSEY

CHANCERY DIVISION, HUDSON COUNTY

DOCKET NO. C-2862-66

DEPARTMENT OF HEALTH,
STATE OF NEW JERSEY, et al.,

Plaintiffs,

vs.

TOWN OF WEST NEW YORK, a
municipal corporation of
the State of New Jersey,

Defendant.

Civil Action

ORDER

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This matter being opened to the Court by Arthur J. Sills, Attorney General of the State of New Jersey, attorney for plaintiffs, Theodore A. Schwartz, Deputy Attorney General, appearing, in the presence of Samuel L. Hirschberg, Esq., attorney for defendant, and it appearing to the Court from the duly verified complaint and affidavits annexed thereto that the sewage treatment plant operated by the defendant is being operated improperly and ineffectively for the treatment of domestic sewage and industrial wastes and that the said improper operation of the said sewage treatment plant is violative of a permit issued by the plaintiffs to the defendant on April 17, 1950 and N.J.S.A. 58:12-3, in that sewage and industrial wastes are bypassing the processes comprising the said sewage treatment plant; and it further appearing that the improper operation of the said sewage treatment plant is causing noxious odors to be emitted from the said plant which has created a source of foulness in violation of N.J.S.A. 26:1A-27; and it further appearing that the defendant is violating N.J.S.A. 58:12-2 in that the defendant has failed to comply with an order of the plaintiffs issued on April 4, 1967 pursuant to the provisions of N.J.S.A. 58:12-2 requiring the defendant to place in operation effective postchlorination equipment on or before May 15, 1967 and

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henceforth maintain continuously each year from May 15 to September 15 a positive chlorine residual of not less than one part per million in the effluent discharged to the Hudson River, and the Court having considered the evidence and arguments presented by both parties; and it further appearing that the plaintiffs are entitled to the relief sought, and for good cause shown;

IT IS on this 3rd day of August, 1967, ORDERED that the defendant Town of West New York, hereinafter referred to as the "Town", its agents, servants and officials, take the following steps to abate the discharge of improperly, inadequately and insufficiently treated sewage and other polluting matter into the waters of the Hudson River, to cease the improper and ineffective operation of the said sewage treatment plant, to cease creating noxious odors and sources of foulness, and to install effective postchlorination equipment in compliance with the plaintiffs' order of April 4, 1967.

1. The Town shall forthwith engage the services of such persons to remove by proper disposal service, either by truck, tank car or barge, in a manner which will not affect the health of the citizens of this State, all of the scum and sludge that has accumulated in the treatment works of the said sewage treatment plant, namely the two sedimentation or settling tanks.

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2. The Town shall forthwith remove all sludge and scum in the two sedimentation or settling tanks in order that the same may be cleaned out, repaired and put into proper and effective operation.

3. The Town shall forthwith make preparations and engage the services of such persons to remove daily by proper disposal service either by truck, tank car or barge, in a manner which will not affect the health of the citizens of this State, all of the scum and sludge being deposited in the treatment works at the said sewage treatment plant from the sewerage system until such time as all of the plant facilities are in proper and effective operation.

4. The Town shall forthwith take such steps and necessary actions to insure that the said coarse bar screen located at 60th Street remains clean and unclogged at all times to prevent the flow of raw sewage and industrial wastes during dry weather flow into the Hudson River.

5. The Town shall forthwith take such steps to insure that no sludge is placed in the incinerator located and used at the said sewage treatment plant until such time as the collection mechanisms and the vacuum filters are operating effectively and efficiently to dewater and chemically treat the sludge in order that the incinerator may properly and effectively burn the sludge material without causing any

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noxious odors or objectionable smoke.

6. The Town shall forthwith repair and have in proper and effective operation all of the treatment works at the said sewage treatment plant including but not limited to the collection mechanism on the two sedimentation or settling tanks and the two vacuum filters for dewatering and chemically treating the sludge materials.

7. The Town shall forthwith comply with all of the provisions and conditions contained in the permit issued by the Department on April 17, 1950 to the Town for the operation of the said sewage treatment plant.

8. The Town shall employ adequate operating personnel to insure that the said treatment works are maintained and operated properly and effectively at all times.

9. The Town shall forthwith take such steps and measures to permanently eliminate the said noxious odors and sources of foulness at the said sewage treatment plant.

10. The Town shall forthwith take such steps to insure that the said incinerator is operated properly in accordance with its design so as not to permit any discharge of noxious odors or objectionable smoke.

11. The Town shall forthwith purchase and install and have in operation effective postchlorination equipment and have the same in operation continuously each year from

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May 15 to September 15 in order to provide a positive chlorine residual of not less than one part per million in the effluent discharged to the Hudson River.

IT IS FURTHER ORDERED that the said sewage treatment plant shall remain within the jurisdiction of this Court until further order of this court in order that all of the provisions of this Order are complied with.

IT IS FURTHER ORDERED that Anthony R. Ricigliano, Supervising Public Health Engineer of the Water Pollution Control Program in the Division of Clean Air and Water of the State Health Department, shall be this Court's representative at the said sewage treatment plant to insure that all of the provisions of this Order are carried out by the Town forthwith.

IT IS FURTHER ORDERED that in the furtherance of the above paragraph Anthony R. Ricigliano shall perform the following acts until such time as the said sewage treatment plant is operating in compliance with all of the provisions of this Order:

1. Supervise the entire operation of the said sewage treatment plant including the activities of the plant operator, Mr. Frank O'Leary, Jr., and the men employed at the said sewage treatment plant;
2. Take all necessary steps, measures and actions, including the obtaining of proposals for necessary services

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and repairs in order to carry out all of the provisions of this Order; and

3. Make such suggestions and recommendations to the Town as are necessary to comply with any of the provisions of this Order.

IT IS FURTHER ORDERED that any expenditures required to be made by the Town, as a result of any steps, measures or actions required to be taken by Anthony R. Ricigliano or to carry out any of his suggestions or recommendations, shall be made only with the approval of the Town.

IT IS FURTHER ORDERED that the Town shall cooperate fully with Anthony R. Ricigliano and take such steps, measures and actions as are necessary to carry out his instructions, recommendations and suggestions until all of the provisions of this Order are complied with.

IT IS FURTHER ORDERED that the plaintiffs may make application to this Court at any time by telephone for appropriate judicial relief to insure compliance with the terms of this Order and such notice may also be given to the Town by telephone.

IT IS FURTHER ORDERED that nothing herein shall be construed as creating any liability on behalf of the plaintiffs or the State of New Jersey for any acts, occurrences or omissions which result in injury and property damage to

R. P. Kandle

the Town or others arising out of the activities of the plaintiffs or the State of New Jersey in carrying out any of the provisions of this Order.

IT IS FURTHER ORDERED that upon completion of the steps required to be taken pursuant to this Order that the Town, its agents, servants and officials, shall be permanently enjoined from operating the said sewage treatment plant improperly and ineffectively in violation of the said permit and N.J.S.A. 58:12-3.

IT IS FURTHER ORDERED that upon completion of the steps required to be taken pursuant to this Order that the Town, its agents, servants and officials, shall be permanently enjoined from permitting any noxious odors to be emitted from the said sewage treatment plant or creating any sources of foulness.

IT IS FURTHER ORDERED that upon completion of the steps required to be taken pursuant to this Order that the Town, its agents, servants and officials, shall be permanently enjoined from violating the said Order of the plaintiffs dated April 4, 1967 requiring postchlorination of effluents discharged from the said sewage treatment plant to the Hudson River.

/s/ James Rosen

J.S.C.

R. P. Kandle

I hereby consent to the form of this Order.

/s/ Samuel L. Hirschberg

Samuel L. Hirschberg

Attorney for Defendant

* * *

SUPERIOR COURT OF NEW JERSEY

CHANCERY DIVISION, HUDSON COUNTY

DOCKET NO. C-2862-66

DEPARTMENT OF HEALTH,

STATE OF NEW JERSEY, et al.,

Plaintiffs,

vs.

TOWN OF WEST NEW YORK, a
municipal corporation of
the State of New Jersey,
Defendant.

Civil Action

ORDER

ARTHUR J. SILLS
Attorney General of New Jersey
Attorney for Plaintiffs
State House Annex
Trenton, New Jersey 08625
By: Theodore A. Schwartz
Deputy Attorney General)

* * *

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DR. KANDLE: Under the direction of the engineer appointed by the court, all of the accumulated sludge was removed, equipment and treatment units were repaired and rehabilitated, and the town engineer was authorized to prepare plans and specifications for the purchase and installation of postchlorination equipment.

The Department of Health recently requested the State Attorney General to take the necessary legal measures to gain compliance with its order against the Passaic Valley Sewerage Commissioners requiring the installation of post-chlorination by May 15, 1967. An order was issued by the Superior Court of New Jersey on September 19, 1967 demanding that the Passaic Valley Sewerage Commissioners appear to show cause why the Department's demands should not be granted.

A copy of this is appended, and I would like to make it part of the record.

MR. STEIN: Without objection, that will be done, and entered as if read.

(The Status of Order to Disinfect reads as follows:)

R. P. Kandle

STATUS OF ORDER TO DISINFECT

BY MAY 15, 1967, AT WASTEWATER TREATMENT PLANTS

IN I.S.C. WATERSHED

<u>Plant</u>	<u>Postchlorination</u>	<u>Remarks</u>
Bayonne City	Yes	Chlorine solution is being applied to effluent from primary sedimentation units. Contact time is flow time in outfall pipe.
Edgewater Borough	Yes	Chlorine solution is being applied to effluent from primary sedimentation units. Contact time is flow time in outfall pipe.
Hoboken City	Yes	Chlorine solution is being applied to effluent from primary sedimentation units. Contact time is flow time in outfall pipe.

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<u>Plant</u>	<u>Postchlorination</u>	<u>Remarks</u>
Jersey City Sewerage Authority (East side and west side plants)	No	Solicited bids on two occasions. The bids were considered excessive and rejected. The 1967 budget includes money for the purchase and installation of postchlorination equipment. It is anticipated that these facilities will be in operation by May 15, 1968.
North Bergen Township Woodclift Section Plant	Yes	Chlorine solution being applied to influent to primary sedimentation units.
*Passaic Valley Sewerage Commissioners, Newark	No	Commissioners submitted on June 6, 1967, a report entitled "Report on Proposed Chlorination Facilities," dated April 1967, to the New Jersey State Department of Health. The

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<u>Plant</u>	<u>Postchlorination</u>	<u>Remarks</u>
		Commissioners have taken no further action.*
West New York Town	No	Under court order dated August 3, 1967.

*The Passaic Valley Sewerage Commissioners were ordered by the Superior Court of New Jersey on September 19, 1967, to show cause why the Department's demands for postchlorination should not be granted.

* * *

DR. KANDLE: The Jersey City Sewerage Authority is in the final stages of completing extensive additions and alterations to the present primary treatment facilities. These improvements include new grit removal facilities, grease collection, new comminutors, and a new sludge incinerator. These improvements have been accomplished at an expenditure in excess of \$3 million.

The Jersey City Sewerage Authority submitted a report on preliminary plans for secondary treatment at the East Side and West Side waste water treatment plants.

The City of Newark completed the southside inter-deptor on October 24, 1966. The raw sewage and industrial

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waste formerly discharged into Peddie's Ditch is now intercepted and conveyed to the treatment facilities of the Passaic Valley Sewerage Commissioners. This improvement removed approximately 30 mgd of waste water from the waters of Newark Bay.

New Jersey submits this record as a creditable achievement consonant with the aims of this conference.

Mr. Chairman, this concludes New Jersey's presentation, although I should like to reserve the option of reopening.

MR. STEIN: That will be done.

That is an excellent statement and a very active program.

Do we have any comments or questions?

MR. METZLER: I don't have a question, Mr. Chairman, but I know how difficult it is to get a program speeded up at the rate at which this one is going, and I think no one will overlook the real efforts that have gone into this, the imagination and leadership, that is making this sort of a program possible.

It is very heartening to know that we are really partners in this effort to get cleaned up together.

MR. STEIN: Thank you, Mr. Metzler.

I think what we have from New Jersey in this report is a real evidence of a program that is moving. Many

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of us who have been around the country have listened to programs, and I think New Jersey has to take second place to none with a program of this kind.

Doctor, you know, when you went on the word "comminutor," you may have bypassed it. You know what you got in proving that pill. The comminutor may be obsolete in a few years. (Laughter)

Are there any other comments or questions?

(No response.)

MR. STEIN: Does that conclude New Jersey's presentation?

DR. KANDLE: Yes, sir.

MR. STEIN: May we hear from the Interstate Commission, Mr. Glenn?

MR. GLENN: I would prefer that New York State go ahead.

MR. STEIN: Do you want to take it up at this point, Dwight?

MR. METZLER: I would be glad to proceed. As a matter of fact, we have some people who want to testify, and it probably would be a convenience to them if we could move right ahead.

MR. STEIN: All right. Let's move ahead.

Let me give you the plans we have. I don't like

to stay much after five o'clock. If we have some people after five, we will reconvene in the morning.

We have several reasons for that. First, you get a little tired and maybe you get testy and say things you don't like to say.

Secondly, I think the critical man is the reporter, and experience has shown that after five o'clock it becomes cruel and inhuman punishment. The reporters always tell us that after five o'clock they get tireder and the people begin talking faster. (Laughter)

We will take as many as we can until about five o'clock, and then we will consider it.

Mr. Metzler, will you go on with the New York presentation?

MR. METZLER: The first representative from New York then for this portion is Commissioner Hult, Commissioner of Public Works for the City of New York, who will make a progress report, and will do this with any assistance from his staff which he may want.

So, Mr. Hult, will you come forward? If you want to involve some of your staff, you can go right ahead and do that.

I might say I think you will find that New York City has some very imaginative leadership also, and we are proud to go ahead with Commissioner Hult and his staff.

E. E. Hult

STATEMENT OF EUGENE E. HULT, COMMISSIONER
OF PUBLIC WORKS OF THE CITY OF NEW YORK

COMMISSIONER HULT: Thank you very much.

Mr. Chairman, Ladies and Gentlemen:

I am really wearing two hats. The one I have on my left side represents Mayor Lindsay, who asked me to represent him here today. He is kind of tied up in a little school problem we have, which is a major crisis.

I do know that he would have liked to have been here to solidify the city's efforts in cleaning up the problems we have with pollution in all areas, and particularly water pollution.

As most of you know, he is very interested in water and water pollution. When he became Mayor in 1966, the reservoirs were half empty or less. Today they are overflowing. We have great confidence in our Mayor. (Laughter)

I am only sorry that Commissioner Marcus, who was here with me this morning and who is Administrator of Environmental Protection, had to leave to take up another assignment, because, with the Mayor out of action, those of us in the administration are doing double duty.

Yesterday I had the privilege of turning on, or,

E. E. Hult

I guess you would call it, actually opening the sluice gate at Newtown Creek. It was an exciting experience to open the sewer, and allow all this to run, instead of into the Newtown Creek, into the East River to a full-fledged operating plant.

The Governor this morning mentioned that a month ago he participated, and I was there to help to accept a \$10 million check. We had been running water through the plant. Today we are running sewage. It takes care of two and a half million people in the Greenpoint and lower New York area ultimately, and this has been a gigantic undertaking for the City of New York.

This only illustrates the magnitude of our program. A \$310 million plant makes an impact on whatever we have to do. It is a giant step forward in our pledge to this conference two years ago, to New York State, to the Interstate Sanitation Commission, in which we have pledged effective biological treatment of 100 percent of dry weather waste water flow by 1972.

The city's plants we have in operation now treat 900 million gallons per day out of a daily flow of 1.3 billion gallons.

Actually, this conference focuses properly on the Hudson River, but in New York City, with its complex of waterfront tributaries, we have to consider everything. It

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is all interrelated.

This necessitates a review of the entire concept of our program to meaningfully concern ourselves with the Hudson River.

We hope this conference will hasten programs in other communities who share our waterways, so that their treatment facilities will be completed concurrently with ours. At that time, the end of 1972, our water will be free of nuisance conditions and the rigorous State stream standards will be met.

The second phase of our continuing efforts here in New York City is to take care of that troublesome combination sewer. The inevitable overflows, particularly this year when we have had the exceptional amount of rainfall, stormwater contaminated with diluted sewage all over the city and in our waterways, has been a real headache.

We have taken the first step in resolving this problem. As the first of a number, we have completed design of the Spring Creek auxiliary water pollution control plant, which will be located out in Jamaica Bay, at a cost of \$12 million. This is a highly instrumented facility designed to impound, settle and disinfect stormwater flow. It has been approved by the Federal Water Pollution Control Administration and New York State. The plans are finished, we are ready to

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go, and all we are waiting for right now to go out for bids is for the Federal approval for the advertisement of the structure bids.

Broad Channel, that you perhaps have read about, in Jamaica Bay, is a small unsewered community in the bay. The city has undertaken drainage studies to improve the conditions in this area.

As part of this, our staff in Public Works has the support of the New York State Department of Health for an in-depth study of all factors involved in the quality of bathing waters. Initially, the area affected will be in the Spring Creek project and its outfall. We hope for Federal support under the demonstration grant program, and we have had a number of conferences in this area. This study should proceed concurrently with the Spring Creek construction of the auxiliary plant.

The third phase of our program is upgrading the treatment potential of our existing plants, twelve of which are in operation. We are constantly aware of the changing technology of environmental protection. The Bureau of Water Pollution Control in the New York City Department of Public Works has made major contributions to more effective, more economical treatment of sewage in the metropolitan area, such as we have. This includes separation, modified aeration,

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sludge thickening, and high rate digestion. We have been pioneers in this for a good number of years.

In this area, we are going to give priority to upgrading the Coney Island and Owls Head plants, and preliminary feasibility studies are under way.

Just to give you a brief look at the detail of the three phases that we are involved in -- and bear in mind that the completion of the basic program in 1972 dictates that we must be moving today to accomplish this in the major facilities -- the first step of the auxiliary treatment plant, such as Spring Creek, should be under way by the end of this year, 1967, and the initial design of the third phase, the upgrading of the present plants, by next year, 1968.

The basic program is, of course, the prime concern of this conference. We started in 1931 with a construction program. One of our people who is here today was here in 1931, and they were the pioneers in the New York City treatment plant extension program.

From 1931 to 1945, we completed 500 million gallons per day of treatment capacity, totaling \$67 million.

From 1948 to 1957, we had completed another 400 million gallons per day of treatment capacity, at a cost of \$117 million.

In 1958, we shifted to improved plant capacity and

treatment at the existing plants due to population shifts, who were moving from the centers of the city out to the rivers and the waterfronts.

The remaining major project that we have before us is Staten Island, a last frontier, popularly known as the garden spot of New York, which has two plants, Port Richmond and Oakwood Beach. We have decided to move immediately with the upgrading of these plants, both in capacity and effective treatment. In effect, they will become super-plants fed by an economical system, by pumping stations and force mains.

I have just about completed design negotiations with two engineering firms, each of whom will handle the expansion and change-over of these two plants. There will be considerable emphasis on effluent dispersion patterns at Oakwood Beach to insure compatibility with restoration of the Staten Island beaches.

The Red Hook plant in Brooklyn: We are looking at the present time for property on the Brooklyn shorefront as this will tighten up the bottom of the lower end of Manhattan and a small piece of Brooklyn, and pick up the effluent or the raw sewage that is now being dumped into the lower East River, and with a very definite possibility we are going to tie this into a major facility of the Department of Sanitation, where there will be an incinerator and a marine

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transfer station along with the sewage disposal plant.

As I said, the sites are now being examined, and we hope to have a decision before the end of the year, so that we can be under way with the engineers who are presently working in the very preliminary stages of a study. The interceptor design is on schedule, and we assume we will be ready for contract on the interceptors.

North River: The designs are complete for the plant and most of the interceptors.

Mayor Lindsay, some months ago, before I came on the scene, ordered an independent engineering and architectural study of this \$200 million project. The purpose was to make sure that the design as proposed would meet the New York State Class I standard for the Hudson River, and to insure esthetic compatibility with the neighborhood community and the other areas of the Hudson River.

The engineering report has been submitted to the Department of Public Works. Philip Johnson, an eminent architect in New York City, has submitted his design layout, which I have in my office, and which I have reviewed with Mayor Lindsay. The adoption of the design layout concept proposed by Mr. Johnson will delay start for changes in the plans until mid-1968, but with that clearance, we see no problem in finishing this 220 million capacity plant in the

E. E. Hult

Hudson River in time for 1972.

MR. STEIN: That is 220 million gallons?

COMMISSIONER HULT: Right. The gallons and the dollars are getting very close together. (Laughter)

As for the second phase that I mentioned, the auxiliary treatment storm overflow plant, we think that the scientific study of the effect of this particular plant, Spring Creek, on coliform population is very important, and it is very appropriate to do this at this time.

This conference -- and I say this very strongly from the city administration -- is earnestly requested to ask Federal approval to give us some help in this study, along with the State. We need a before and after evaluation of Jamaica Bay in the area of the Spring Creek plant.

Finally, and most appropriate, with representatives --

MR. STEIN: Mr. Hult, before you go on there, do you have an estimate of the cost of that?

COMMISSIONER HULT: You mean of the study?

MR. STEIN: The study.

COMMISSIONER HULT: No, I don't know.

MR. LANG: \$1 million.

MR. STEIN: For how long? Over how many years?

MR. LANG: It is phased over a three-year period,

sir.

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MR. STEIN: In other words, you will need about \$330,000 a year?

MR. LANG: In that order.

MR. STEIN: Of Federal funds?

MR. LANG: Yes, sir.

MR. STEIN: All right.

MR. LANG: With substantial city participation as well.

MR. STEIN: Yes, but this is what you need?

MR. LANG: Yes.

MR. STEIN: I thought we might be able to handle it, but I'm afraid you are getting a little high.

COMMISSIONER HULT: Whatever you can give will be appreciated. (Laughter)

MR. STEIN: We may be able to talk about that. We are getting a little close.

COMMISSIONER HULT: All right.

MR. STEIN: Thank you.

COMMISSIONER HULT: Finally, and most appropriate with representatives of the Federal and State agencies here, is to consider the impact of their aid programs on the big construction program that we have in New York City.

In 1965, when Mayor Wagner was here, he pointed out that between 1957 and 1965, \$223,000,000 had been spent

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by New York City. We received help from the State of New York in the sum of \$3.4 million for design and borings, \$2.3 million from the Federal Government for construction.

Since 1965, under the New York State Pure Waters Bond Act, \$65 million of the Newtown Creek construction was declared eligible for aid up to 60 percent, or \$39 million. We have received already \$31 million from the State of New York. Federal aid amounted to 0.15 percent, the maximum allowed, or \$250,000 under existing Federal legislation.

We have filed current construction projects of \$225 million. The allotments, as we see it, amount to State aid of \$131 million and Federal aid of \$4 million, a total of \$135 million. There is a possibility of Federal aid up to 55 percent of the eligible cost, if they appropriate money.

The conference here and this group of conferees is requested to convey to the Federal authorities the urgency for appropriations realistically related to the actual needs.

I am turning over a position paper which we have written as a guide to your group. We hope you won't nit-pick it. It is there for background material on our program. It contains a revised schedule and a detailed timetable for the next five years, and I will file it with a copy of my statement that I have just made.

Thank you very much.

E. E. Hult

MR. STEIN: Thank you.

How long is that statement?

COMMISSIONER HULT: How long is what?

MR. STEIN: That statement you are filing?

COMMISSIONER HULT: Just what I said.

MR. STEIN: I want to know how long it is, whether we want it in the record as if read, or as an exhibit.

May I see that, Mr. Lang?

MR. LANG: Yes (handing same to Mr. Stein). This is the statement and this is the detailed exhibit.

MR. STEIN: I am looking at this. I think this is a key document and I would like the views of the conferees on this.

Without objection, I think we will put this position paper in the record as if read.

COMMISSIONER HULT: That is perfectly all right with me.

MR. STEIN: Thank you.

(The position paper referred to is as follows:)

E. E. Hult

CITY OF NEW YORK
DEPARTMENT OF PUBLIC WORKS
BUREAU OF WATER POLLUTION CONTROL

A PRESENTATION

on

THE NEW YORK CITY
WATER POLLUTION CONTROL PROGRAM

- - -

September 1967

NEW YORK CITY WATER POLLUTION CONTROL PROGRAM

I. INTRODUCTION

The City of New York is intensively engaged in two programs to abate pollution in harbor waters. These are: (1) The Basic Water Pollution Control Program and (2) The Auxiliary Water Pollution Control Program.

The Basic Water Pollution Control Program is directed towards the treatment of the city's wastewater in modern plants, in general of the activated sludge type.

The Auxiliary Water Pollution Control Program is directed toward the retention and disinfection, by means of sodium hypochlorite, of all combined overflows in times of rainfall at locations where the waters are to be used for

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recreational purposes, especially at locations of planned bathing beaches.

Over thirty years ago, the people of New York City voted to approve a charter change which consolidated efforts toward control of pollution in harbor waters into a single city-wide agency. The consolidated function was first assigned to the Department of Sanitation, and subsequently, by 1938 Charter change, to the then newly formed Department of Public Works. The direct responsibility for the design, construction, maintenance and operation of the city's wastewater treatment plants and intercepting sewer system lies in the Bureau of Water Pollution Control of the Department of Public Works.

On January 1, 1963, by Charter Amendment, jurisdiction over the sewer systems in the five boroughs of the city was vested in the Department of Public Works, and added to the responsibilities of the Bureau of Water Pollution Control. The Bureau now has a personnel of over 2,000.

II BASIC WATER POLLUTION CONTROL PROGRAM

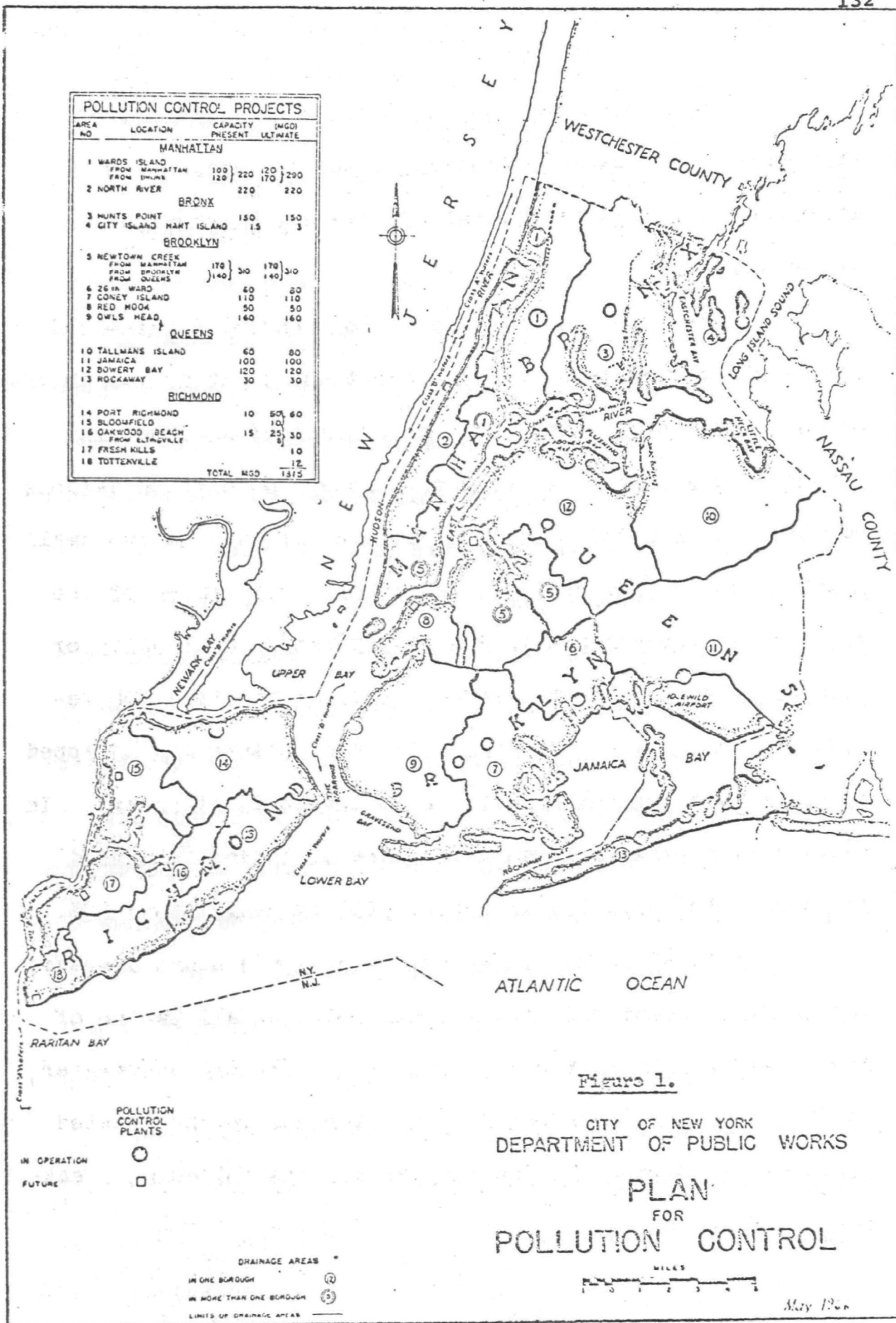
The City of New York is rapidly bringing to completion a program started some forty years ago to treat the city's wastewater. A major depression and wars were factors in retarding this program. Availability of Federal and State

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construction aid in recent years has added momentum to bring this program to its conclusion. The city is committed to complete all phases of the program by 1972.

The modern program for water pollution control started on its construction phase in 1931 with the beginning of work at Wards Island. At present, the entire program envisions 18 treatment plants and intercepting sewer systems located about the waterfront areas of the city. The number of plants and the type of treatment may be modified by consolidation of plants and upgrading of treatment if more intensified studies warrant such changes. Such studies are currently under way and definitive answers should be available in the near future. Figure 1 - "Plan for Pollution Control," shows the number, locations and design capacities of the treatment plants involved in the basic program. (See following page.)

Twelve of the 18 plans are presently in operation; number 13, the Newton Creek plant, largest in the program, will be in operation during the summer of 1967. Not all parts of the tributary areas of these plants, however, are contributing flow, either because the areas are not completely sewered, or because not all the intercepting sewers and pumping stations necessary to convey the wastewater to the treatment plants have been built.



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The criterion used to measure the efficacy of elimination of organic pollution is the conventionally accepted percentage of removal of five-day Biochemical Oxygen Demand.

In 1966 the Water Pollution Control Program had twelve plants completed and in operation, treating two-thirds of the city's wastewater. Ten major biological treatment plants give secondary treatment to about 800 million gallons per day. Only about 8 million gallons per day, in two small plants, receive just primary treatment. Only three of the secondary treatment plants are now operated continually or seasonally on the "step aeration" process to yield BOD removals of about 90%. However, six major plants are equipped to do so, and eventually will be so operated, of course. In this interim period, seven plants are utilizing "modified" or "high rate" aeration to achieve BOD removals above 60%.

Based on the five-year (1961-1965) plant averages for flow, influent BOD, and effluent BOD, of all twelve of the existing plants, the raw load of the treated wastewater is 991,800 lbs. of BOD per day, and the BOD in the treated effluent is 307,800 lbs. per day as per the following breakdown in Table I.

TABLE I
CURRENT OPERATION OF TREATMENT

PLANTS NOW EXISTING

<u>Plant</u>	<u>Flow M.G.D.</u>	<u>Influent BOD Lbs./Day</u>	<u>Effluent BOD Lbs./Day</u>
Wards Island	210	263,500	57,000
Hunts Point	120	124,000	33,500
26th Ward	53	47,000	10,000
Coney Island	85	85,000	37,000
Owls Head	92	100,000	52,000
Jamaica	72	80,000	31,000
Tallman Island	42	75,000	21,500
Bowery Bay	100	174,000	52,000
Rockaway	17	13,500	5,000
Oakwood Beach	9	7,800	2,800
Hart Island	1	5,000	1,000
Port Richmond	10	<u>17,000</u>	<u>5,000</u>
		991,800	307,800

Therefore in the present interim phase, with the plants not operated to the full design intent, removal in the treated wastewater is:

$$\frac{99,900 - 307,800}{991,800} = 69\%$$

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The presently untreated wastewater load has been computed on the basis of the population of the untreated drainage areas with normal New York City wastewater strength, except for the Newtown Creek drainage area, with its industrial load. (See Table II, next page.) This untreated load is 421,610 lbs. of BOD per day.

Therefore the 1966 city-wide BOD removal, accounting for direct raw discharges, was:

$$\frac{1,413,410 - 729,410}{1,413,410} = 48\%$$

which means that with twelve plants presently providing less than full design treatment to two-thirds of New York City's wastewater, the overall pollutant removal for the city was 48%.

The City of New York has committed itself to the construction of five additional plants in the near future, one of which, the Newtown Creek, will open during the summer of 1967. Five of the existing plants will be extended. This program will be completed by 1972. At that time a total treatment capacity of 1.8 billion gallons per day will be provided, capable of accommodating almost a 40% growth in New York City. Twelve of these plants will provide for removal of 92% of the BOD, based on the weighted average performance over the past five years with the complete Gould

TABLE II

CURRENT UNTREATED NEW YORK CITY BOD DISCHARGES

I <u>UPPER HUDSON LOADS</u>						
Marble Hill - 8200 x 140 GPCD = <u>1.15</u> MGD x 132 PPM x 8.34 = <u>1270 #/Day</u>						
II <u>LOWER HUDSON</u>						
Man - N.R.*	- 661400 x 140	= 92.5	x 132	x 8.34	=	102000
Man - N.C.	- 150000 x 140	= <u>21.0</u>	x 132	x 8.34	=	<u>23000</u>
III <u>HARLEM RIVER</u>						
Bronx & Man.	- 95000 x 140	= <u>13.3</u>	x "	x "	=	<u>14600</u>
IV <u>LOWER EAST</u>						
Manhattan	- 291400 x 140	= 41	x "	x "	=	145000
Bklyn & Qns	- 763600 x 140	= <u>107</u>	x 139	x 8.34	=	<u>170000</u>
Red Hook	- 130000 x 140	= <u>18.2</u>	x 132	x 8.34	=	<u>20000</u>
V <u>UPPER BAY</u>						
Red Hook	- 100000 x 140	= <u>14</u>	x "	x "	=	<u>15400</u>
VI <u>RARITAN BAY</u>						
Eltingville	- 10000 x 140	= <u>1.4</u>	x "	x "	=	<u>1540</u>
VII <u>ARTHUR KILL</u>						
	22000 x 140	= <u>3.1</u>	x "	x "	=	<u>3400</u>
		Proctor & Gamble			=	<u>20000</u>
VIII <u>KILL VAN KULL</u>						
	35000 x 140	= 4.9	x "	x "	=	5400
			Total		=	421,610 Lbs./Day

* Man. - N.R. - North River Drainage Area of Manhattan

Man. - N.C. - Newtown Creek Drainage Area of Manhattan

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step aeration' process. The remaining five plants will provide 'modified aeration' treatment to conservatively yield a 63% BOD removal, based on the plant experience for the past five years as per the following breakdown in Table III.

(See following page.)

TABLE III
SUMMARY OF OPERATING DATA AT NEW YORK CITY
MODIFIED AERATION PLANTS OPERATED WITHOUT PRE-SEDIMENTATION

Plant Name	Percent BOD Removal	Sludge Age Days	Influent SS mg/l	BOD mg/l	Flow MGD	Aerator S.S. PPM	Time Hours	Air Ft ³ /Gal	Final Overflow Gal/Ft ² /Day
<u>Coney Island</u>									
Average	66	.19	163	141	77.33	460	1.6	.25	1,297
1965	65	.19	170	150	69.4	410	1.8	.24	1,170
1964	71	.16	171	147	76.4	390	1.6	.29	1,230
1963	61	.24	147	125	86.2	580	1.4	.23	960
<u>Rockaway</u>									
Average	62	.23	124	87	15.52	363	1.90	.41	620
1965	65	.29	145	100	14.2	380	2.3	.43	460
1964	60	.27	112	92	14.0	310	2.1	.46	580
1963	59	.22	112	81	14.7	300	2	.44	690
1962	63	.15	126	73	19.2	460	1.2	.32	750
<u>Jamaica</u>									
Average	72	.67	192	134	54.15	919	2.57	.52	697
1960	65	.57	175	130	57.3	889	2.1	.40	745
1959	71	.65	179	124	53	827	2.6	.52	715
1958	75	.78	199	135	54.6	1,029	2.7	.57	669
1957	78	.70	213	146	51.7	930	2.9	.62	660
<u>Oakwood</u>									
Average	63	.37	165	98	9.6	410	3.02	.36	660
1965	56	.35	168	109	9.3	390	3.0	.44	600
1964	54	.36	166	83	10	420	2.9	.36	740
1963	70	.47	171	113	8.9	480	3.3	.35	600
1962	71	.32	155	87	10.2	350	2.9	.32	700
<u>Owls Head</u>									
Average	55	.24	156	151	93.52	544	1.45	.30	857
1957	58	.26	155	163	87.8	630	1.4	.31	810
1958	54	.24	149	164	93	510	1.5	.28	847
1959	56	.23	155	154	96	533	1.5	.30	880
1960	53	.23	163	121	97.3	510	1.4	.34	891
<u>Average of All</u>	63	.34	160	121	---	543	2.13	.37	745

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New York City has a static, even shrinking, population. A fantastic growth to a population of 11 million would be required, at present per capita flows, to deliver the full design contribution to the plants. The expected removals for this extreme condition have been computed by three different methods as follows:

METHOD 1.

PROJECTION OF CITY-WIDE DEGREE OF BOD REMOVAL,
WITH ALL PLANTS TREATING FULL DESIGN FLOW.

- A. Determination of Ultimate Load, with 1.8 Billion Gallons per Day flow, by extrapolation of present load, computed on per capita contribution.

Residents

7.9 Million Persons at 0.18 #/Day/Cap

$$7.9 \times 10^6 \times 0.18 = \underline{\underline{1,421,000 \text{ #/Day}}}$$

Transients

500,000 Persons at 0.06 #/Day/Cap

$$0.5 \times 10^6 \times 0.06 = \underline{\underline{30,000 \text{ #/Day}}}$$

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Industrial

In Newtown Creek and Bowery Bay Area

$$\text{Bowery Bay 110 MGD} \times 8.34 \times (189-132) = \underline{52,000 \text{ \#/Day}}$$

Newtown Creek 2-1/2 (Flow of Bowery Bay)

$$2-1/2 \times 52,000 = \underline{182,000 \text{ \#/Day}}$$

$$\text{Procter \& Gamble, Staten Island} = \underline{10,000 \text{ \#/Day}}$$

$$\text{Total} \quad 1,653,000 \text{ \#/Day}$$

$$1,653,000 \text{ \#/Day} \times \frac{1.8 \text{ Billion Gal/Day}}{1.3 \text{ Billion Gal/Day}} = 2,290,000 \text{ \#/Day}$$

Ultimate Load

- B. Determination of Ultimate Load, with 1.8 Billion Gallons per day flow, by use of known strengths of sanitary and industrial flows.

BOD strength of normal wastewater in those plants in primarily non-industrial areas (See Figure 2, Page 12) is 132 ppm, or 1100 lbs/MGD.

BOD strength of wastewater in plants treating residential and industrial areas (Bowery Bay) is 189 ppm.

$$1500 \text{ MGD at } 1100 \text{ lbs/MGD} = 1,650,000 \text{ lbs.}$$

$$300 \text{ MGD (Industrial)} \times 189 \times 8.34 = \underline{473,000 \text{ lbs.}}$$

$$2,123,000 \text{ lbs./day}$$

ULTIMATE LOAD

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C. Determination of BOD to be discharged ultimately.

1) Degree of Treatment at Modified Aeration Plants.

Average of all such plants, without primary sedimentation tanks, based on most recent operation experience is 63% BOD Removal. (See Table III, Page 8)

2) Degree of treatment at Step Aeration Plants, using all available experience of past five years is 92% BOD removal.

	<u>% Rem.</u>	<u>Months</u>	
Wards Island	95	60	
Hunts Point	(86	12	
	(89	1	Weighted
	(95	5	Average =
	(82	7	92%
Bowery Bay	84	2	

3) By attributing the above average to future plants, but rating existing plants at their actual performances, the consultant firm of Quirk, Lawler and Matusky, project the following BOD loadings from treated plant effluents:

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Upper Hudson	0 #/Day
Lower Hudson	110,000 #/Day
Harlem River	0 #/Day
Upper East River	52,500 #/Day
Lower East River	176,000 #/Day
Kill Van Kull	4,000 #/Day
Arthur Kill	5,600 #/Day
Raritan Bay	2,000 #/Day
Ocean, Jamaica Bay and	
Upper Bay	<u>91,000 #/Day</u>

Total Load from

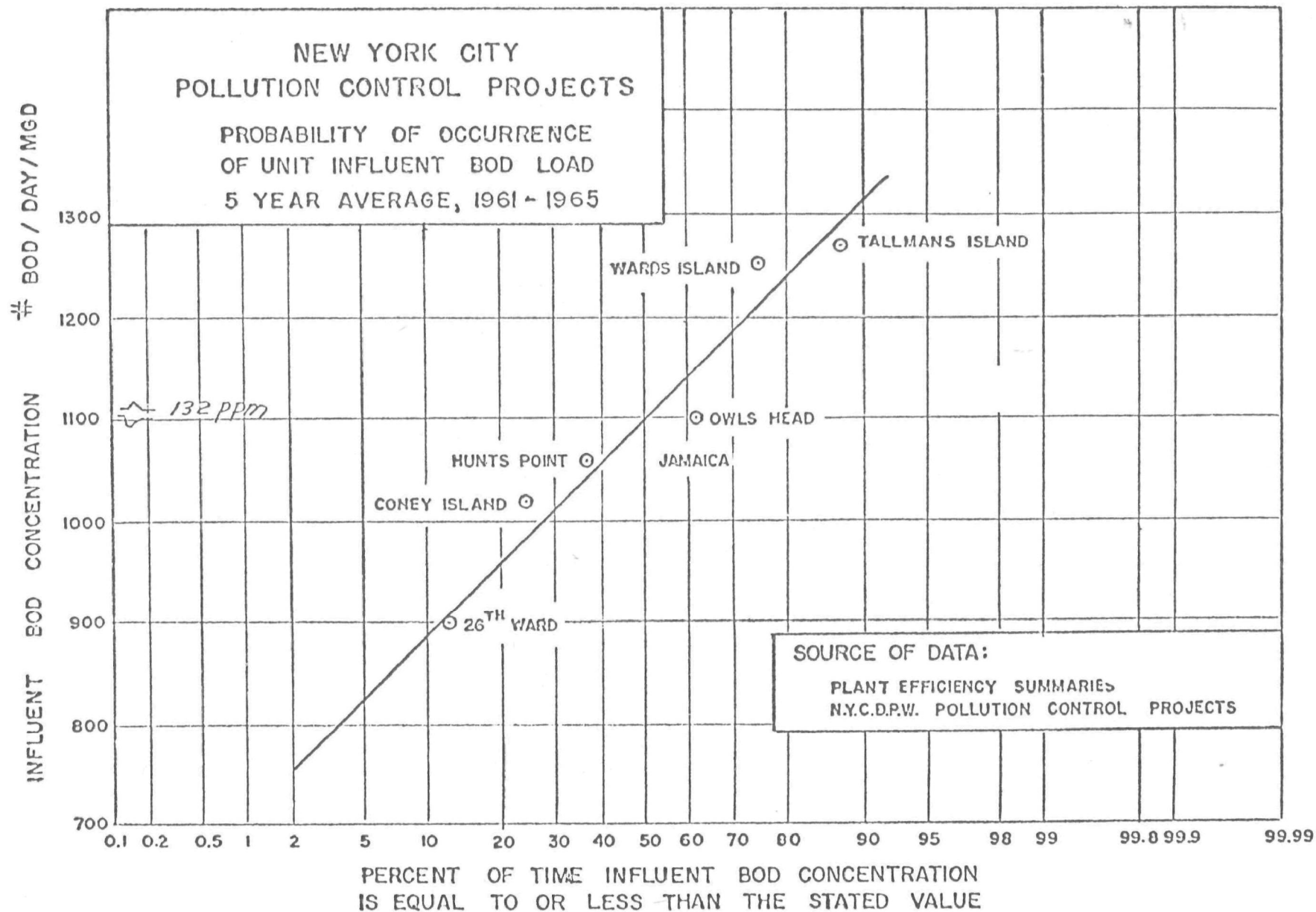
New York City 441,000 #/Day

D. Removal

Influent Load, average of A. and B., = 2,200,000 lbs/Day

Effluent Discharge = 441,000 lbs/Day

$$\frac{2,200,000 - 441,000}{2,200,000} = 80\%$$



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METHOD 2.

PROJECTION OF CITY-WIDE DEGREE OF BOD
REMOVAL, WITH ALL PLANTS TREATING FULL
DESIGN FLOW.

With all plants constructed, there will be:

830 MGD of Modified Aeration Capacity

970 MGD of Step Aeration Capacity

$$830 \times .63 = 523$$

$$970 \times .92 = \underline{893}$$

$$1800 \underline{/1,416} = 79$$

Weighted average removal = 79%

METHOD 3.

PROJECTION OF CITY-WIDE DEGREE OF BOD
REMOVAL, WITH ALL PLANTS TREATING FULL
DESIGN FLOW.

Present Flow = 1.3 B.G.D.

Design Flow = 1.8 B.G.D.

Increase in Flow = 500 MGD

Present Plant Capacity = 1,037 MGD

Additional Plant Capacity to be

Constructed = 758 MGD

How will the additional 500 MGD be distributed

between the two types of treatment?

Full design flow postulates a 38% increase in New York City flows and load. At least two-thirds of this should be attributed to those areas of the city with a potential for population growth. At most, one-third can be attributed to such areas as Manhattan, and the industrial complexes like Long Island City, Erie Basin and Bush Terminal, which happen to be served exclusively or mainly by modified aeration plants.

At presently known flows, with all plants built, the distribution of treatment would be:

600 MGD by Modified Treatment

700 MGD by Step Aeration

By logically prorating the additional 500 MGD, the eventual allocation would be:

$(600 + 167) = 767$ MGD by Modified Treatment

$(700 + 333) = 1,033$ MGD by Step Aeration

$767 \times .63 = 483$

$1033 \times .92 = \underline{951}$

$1800 \quad \underline{/1,434} = 80$

Weighted average removal = 80%

Summary of three methods of computation: Method 1

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was based on known wastewater strengths, industrial loads, and existing plant performances. Method 2 was based on weighted average removals, if all plants received flow exactly as designed. Method 3 was based on weighted average removals, with any increase beyond the now known flows rationally allocated to the two degrees of treatment.

The results are:

Method 1 - 80%

Method 2 - 79%

Method 3 - 80%

By 1972, with eighteen plants treating New York City's wastewater to full design intent, the overall pollutant removal will be 80%.

The auxiliary water pollution control program, with the auxiliary plants impounding storm overflows in Jamaica Bay, Eastchester Bay, and the Upper East River, will be completed by 1980. Estimates of the proportion of normal dry weather BOD contribution that is spilled over during storm overflows have been cited from 5 to 10 percent. A further annual reduction of BOD in these drainage areas by the detention, settling, degritting, and effluent disinfection in these facilities of at least 2 percent is conservative.

The firm of Quirk, Lawler and Matusky, Engineers, was retained by the city to analyze the effect of pollution

and treatment processes on water quality in the Hudson River. This report, titled "Analysis of the Process Design of the North River Pollution Control Project and of its Effect on Water Quality in the Hudson River" and dated February 1967, separately bound, is made a part of this presentation.

In addition to the twelve treatment plants presently in operation, the completion of the basic water pollution control program will require the following projects:

NEWTOWN CREEK

The construction of this treatment plant is nearing completion. Initial operation, accepting wastewater from most of the Brooklyn and Queens tributary areas, will commence in the summer of 1967. The flow from Manhattan will be added in 1968 when the large pumping station at Avenue D and East 13th Street and the remaining portions of the interceptors have been completed. The new sludge vessel, now under construction, is scheduled for completion early in 1968.

NORTH RIVER

A large project under design is the North River W.P.C. Plant and its system of intercepting sewers which will treat the raw sewage from Manhattan now entering the Hudson and Harlem Rivers from Bank Street north to and including the

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northernmost part of the island and around the Harlem River as far south as East 189th Street. The plant will be situated between West 137th Street and West 145th Street on the North River. The preliminary plant design was completed by private consultants during the year 1964 and final design is nearing completion. The intercepting sewers will be built under five sections, one of which was placed under contract in 1966. Design of three more is well advanced and will be completed in 1967. The final and fifth section will be ready for contract in early 1968. The project will have a capacity of 220 MGD.

The location, technical design and esthetic features of this plant have been undergoing independent critical review. The technical plans have been given clearance in a report by sanitary engineering consultants, Quirk, Lawler and Matusky. The esthetic features are under study by an outstanding architect, Philip Johnson. It is hoped that when his report has been received we will be able to complete the final design including whatever revisions are recommended, and advance the construction of this important plant.

WARDS ISLAND EXTENSION

The construction of 3 pumping stations, force

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mains and intercepting sewers serving the Riverdale area in the Bronx, started in 1965, was 95% complete by the end of 1966.

The preliminary designs for expansion of the Wards Island plant from 220 MGD to 290 MGD were completed by consultants. Detail design is being processed, in part, by DFW personnel starting with rehabilitation of the Manhattan and Bronx Grit Chambers, construction of which will start in 1967. Plant expansion is several years away.

RED HOOK

The site for the Red Hook plant in Brooklyn was adopted during 1965. Unfortunately this site, selected for a high rate activated sludge plant, will be inadequate to accommodate an upgraded treatment facility using the Gould 'step-aeration' process as now proposed to meet newly fixed State and Federal requirements. Hence it will be necessary to augment or shift this site. In the meantime the interceptor designs are advancing. At the end of 1966, final design of the north branch intercepting sewer was about 50% completed and the south branch 25%.

Completion of Riverdale, Newtown Creek, North River and Red Hook projects will eliminate the last major discharges of raw sewage into the harbor from the four most

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populous boroughs.

Realization of this interim goal will reduce the polluttional load on the Hudson, Harlem and East Rivers, and Newtown Creek by an equivalent population of over 3,000,000 persons. This will significantly improve the sanitary quality of the waters in the inner harbor.

STATEN ISLAND PROJECTS

There is a small plant providing primary treatment at Port Richmond, Staten Island. In 1964 consultants began a comprehensive study under the State Aid Program for the expansion of this project from primary treatment for 10 MGD to secondary treatment for 60 MGD. At the end of 1966 this study was substantially complete.

The final design, which will commence in 1967, will be based on upgrading treatment of the Gould 'step-aeration' process in order to meet increased requirements of the regulatory agencies. The design of the west branch interceptor was completed in 1966 and construction will start shortly. Preliminary design of the east branch intercepting sewer was started during the year and will be completed in 1967.

Present studies indicate that we will not construct a plant in the Bloomfield area within the next three decades, if at all. Inasmuch as the waters of the Arthur Kill are in a degraded condition, we prefer to pump Bloomfield wastewater

over to the Port Richmond plant for treatment there.

Whether we ever build a plant on the Arthur Kill will depend upon the population growth in the two areas and the turn of industrial development.

The other facility presently in operation on Staten Island is known as the Oakwood Beach Plant located in the Great Kills Park. Preliminary for the west branch interceptor has been completed by consultants. Construction of this long branch will make possible the conveyance of sewage to the plant from the entire south shore of Staten Island from Great Kills Park to Prince's Bay. A pumping station will be built to include the Eltingville area in this project. The plant will be expanded from 15 to 30 MGD capacity in the near future.

The Tottenville area is of great concern because of the tentative classification of the waters of Raritan Bay for shellfishing. Consultants have completed the comprehensive study for a small plant.

The Fresh Kills area is the last remaining region to be considered in our plans to provide treatment facilities for Staten Island sewage. A State-aided comprehensive study by consultants is 45% complete.

In conclusion, Section II of this presentation indicates that in a matter of five or six years the basic

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water pollution control program for the entire city, as originally planned, should be completed, and should result in an overall removal of better than 80% of the total BOD in the city's wastewater.

III - CONSOLIDATION OF TREATMENT PLANTS -

BASIC WATER POLLUTION CONTROL PROGRAM

A reduction in the total number of treatment plants as originally proposed under the Basic Program is highly desirable. Fewer plants are less costly to construct, maintain, and operate. A larger plant requires only a few more men for operation than a smaller one. Rising labor costs can be expected over a long period of time. It is thus apparent that substantial savings can be achieved by reducing the number of plants required to treat the city's total wastewater. Improved operation and treatment is also indicated by having fewer and larger plants.

This concept of consolidation of plants and reducing the total number of plants required under the Basic Program is applicable to the Borough of Richmond. To complete the Basic Program as originally planned would require in addition to the two presently existing plants and proposed extensions to these two plants, the following new projects:

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<u>Project</u>	<u>Ultimate Capacity</u>
Bloomfield	10 MGD
Fresh Kills	10 MGD
Tottenville	12 MGD

We are now planning to deliver the Bloomfield flow, by pumping stations and force mains, to the Port Richmond Extension up to the time the 60 MGD planned design capacity of this plant is exceeded, which we expect will not be reached until the early part of the next century, if at all. If and when it appears that the design capacity of the Port Richmond Extension will be exceeded, consideration will be given to providing a separate treatment plant for the Bloomfield drainage area. The sewage pumping stations, force mains and intercepting sewer system are so designed as to provide for this eventuality. The Port Richmond Extension will be designed for the 'step-aeration' activated sludge process.

Studies are under way to eliminate the presently proposed Tottenville and Fresh Kills Treatment Plants. Under this new proposal, the present Oakwood Beach plant will be enlarged and will, in addition to the flow from its drainage area, receive the added flows from the Tottenville and Fresh Kills drainage areas. The Oakwood Beach Extension will be

designed for the 'step-aeration' activated sludge process. The planned ultimate design capacity of the Oakwood Beach Extension, to accommodate the projected increased flow from its drainage area as well as the additional flows from Tottenville and Fresh Kills drainage areas will be 60 MGD. However, this full capacity will not be required for a long time and the expansion program will be phased in two stages, with Stage 1 entailing a design capacity of 30 MGD, or twice the presently provided Oakwood Beach capacity, and Stage 2 providing the additional capacity of 30 MGD for a total ultimate design capacity of 60 MGD. In any case, flexibility will be provided in the pumping stations, force mains and intercepting sewers which will permit construction of additional plants if the ultimate design capacity of the Oakwood Beach Extension is exceeded in the future. Sites for this eventuality are being reserved.

The Borough of Richmond will then have only two major 'step-aeration' activated sludge treatment plants capable of removing upwards of 90% of the BOD from the wastewater of the Borough.

Consolidation of treatment plants in other boroughs of the city is not deemed feasible due to cost, site limitations and intercepting sewer complications.

In conclusion, Section III of this presentation

indicates that the 18 plants as originally proposed under the Basic Program can be reduced to 15 by consolidation.

IV. UPGRADING OF TREATMENT AT EXISTING OR PROPOSED MODIFIED
AERATION PLANTS - BASIC WATER POLLUTION CONTROL PROGRAM.

This section will explore the overall feasibility of upgrading the treatment potential at existing or proposed modified or short-period aeration plants under the Basic Program.

The plants involved, design capacities, and the type of treatment designed for are as follows:

<u>Plant</u>	<u>Ultimate Design Capacity, MGD</u>	<u>Type Treatment</u>
North River	220	Short Period Aeration
City Island-Hart Island	3	Primary Sedimentation
Newtown Creek	310	Modified Aeration
Coney Island	110	Modified Aeration
Owls Head	160	Modified Aeration
Rockaway	30	Modified Aeration
Port Richmond*	60	Modified Aeration
Oakwood Beach	30	Modified Aeration
Fresh Kills	10	Modified Aeration
Red Hook	50	Modified Aeration

*Includes Bloomfield

Feasibility studies directed towards the overall objective of upgrading the treatment potential at the above listed plants, in part, or in total, will be conducted. Site limitations, cost, and other problems may impose obstacles towards the entire fulfillment of this objective.

RICHMOND Conditions in the Borough of Richmond offer the least difficulty to the stated objective. As discussed in Section III, Richmond will by consolidation have only two large treatment plants to handle the entire borough's wastewater, namely the Port Richmond Plant and the Oakwood Beach Plant. Both the existing plants will be altered and expanded by Extensions to provide capacity to accommodate the entire borough's wastewater flow to at least the early part of the next century. As presently proposed, both Extensions will be designed for the 'step-aeration' activated sludge process. This process insures consistent BOD removals in excess of 90%. This will result in the substantial abatement of pollution from the Borough of Richmond in the waterways abutting the State of New Jersey.

BROOKLYN By comparison, the Borough of Brooklyn being more highly developed than the Borough of Richmond, offers considerably more difficulties. The physical limitations of available area for enlargement of existing sites for Extensions and the nature of the reconstruction of existing

facilities to upgrade treatment complicates the problem and severely hinders accomplishing the desired objective of providing treatment by the 'step-aeration' process.

CONEY ISLAND

This plant presents few difficulties in regard to conversion. Sufficient land is available to fully accommodate a plant using the 'step-aeration' process. The conversion would require alterations to existing structures and the following new structures: 1) primary settling tanks, 2) additional aeration tanks along with increased blower capacity, and 3) additional sludge thickeners. The present digester capacity is considered adequate for 'step' sludge operation. At the time a decision is made to convert to 'step-aeration' treatment, a complimentary decision will be made to abandon power generation and operate the plant on purchased utility power, if such proves economically feasible.

OWLS HEAD

A study is presently under way to provide additional site area at this plant by filling the offshore portion of the plant property on the south side of the existing site. It is expected that this will provide sufficient land for the structures required for conversion to the 'step-

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aeration' process. The conversion would require alterations to the existing structures and the following new structures: 1) primary settling tanks, 2) additional aeration tanks with increased blower capacity, and 3) sludge thickening tanks. The present digester capacity is considered adequate for 'step' sludge operations. A decision to abandon power generation similar to Coney Island, will be made.

RED HOOK

This plant as originally proposed under the Basic Program was to be designed for the 'modified-aeration' process. A site for this type of plant was selected under the Manhattan Bridge. Conversion of the design to 'step-aeration' at this site presents tremendous difficulties in view of the limited area available. However, it may be possible for the City of New York to acquire a suitable site for a 'step-aeration' plant at the Brooklyn Navy Yard, which is scheduled to be abandoned. The Red Hook plant will be designed for a capacity of 50 MGD based on average sewage flow.

NEWTOWN CREEK

The conversion of the Newtown Creek Plant from 'modified' to 'step-aeration' presents the most difficulties of all the plants in the city system. This plant designed

for a capacity of 310 MGD based on an average sewage flow is on a 32-acre site practically all of which is occupied by structures. Hence, the possibility of converting this plant to 'step-aeration' is extremely doubtful. The area surrounding this site is presently fully occupied by industrial establishments or residential structures. Acquisition of additional site area by the City of New York would require condemnation at great expense. This possibility is therefore considered only as a last resort. If it is deemed necessary to convert the Newtown Creek Plant to 'step-aeration', it will be necessary to make changes to the present plant by modifications to the aeration and final tanks to permit addition of primary sedimentation tanks, aeration tanks and final tanks, as required by 'step-aeration' and limit the capacity of the altered plant to permit handling of only the Brooklyn and Queens flows, or for a capacity of 140 MGD based on an average sewage flow. The Manhattan flow would then essentially require the construction of a new 'step-aeration' plant, on a new site abutting the 'step-aeration' plant handling the Brooklyn and Queens flows. This additional plant required to handle the Manhattan flow will then have a design capacity of 170 MGD based on an average sewage flow for a total combined flow of the two plants of 310 MGD. Abandoning of power generation at the plant and converting

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to purchased utility power would also be indicated.

The conversion of existing structures and the expansion required for this proposal is of such great extent that enormous capital costs would be required. A decision of such great importance is involved that considerable 'in depth' study would have to be made to obtain a viable solution to the problem.

QUEENS-ROCKAWAY The Borough of Queens offers the least problem toward the objectives of achieving conversion of 'modified-aeration' plants to the 'step-aeration' process. The only project involved is the Rockaway plant. Sufficient area is available at the site of the Rockaway plant to convert from 'modified-aeration' to 'step-aeration.' The conversion requires the following:

1. New preliminary sedimentation tanks.
2. Additional aeration tanks as well as additional process air blower capacity.
3. Additional sludge thickening tanks.

BRONX The Borough of the Bronx is not involved. The drainage area is presently receiving 'step-aeration' treatment at 2 plants, namely, Wards Island and Hunts Point. The only exception is the small flow receiving primary treatment at the City Island-Hart Island plant.

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MANHATTAN-NORTH RIVER In the Borough of

Manhattan only the North River Plant is involved since the remaining portions of the Manhattan drainage areas receive treatment at the Wards Island and Newtown Creek Plants.

The North River Plant presently designed for 'short-period aeration' activated sludge treatment has site limitations which preclude full conversion to 'step-aeration' treatment. However, there is an area available to the south of the present site that can be prepared for site expansion. This will permit conversion of the North River plant from its present design 'short-period' to 'modified-aeration' with treatment potential of achieving about 70% BOD removal in the wastewater from this drainage area. This would provide an increase of about 20% from the presently designed potential of about 50%. This in essence is the maximum treatment potential possible at the existing and expanded site.

There are no possible sites on the west side of the Borough of Manhattan for relocation of the North River Plant to provide for 'step-aeration' treatment. Any departure from the expressed concepts, will, in essence, mean the complete abandonment of a plant in Manhattan. The only remaining alternative would be to convey the flow from the North River drainage area to a new prepared site for a

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'step-aeration' plant at Wards Island. A pumping station and a deep force main tunnel through rock would be required to convey the flow to Wards Island. This proposal would be very costly and would mean a postponement in starting construction of this very vital public improvement and a delay in the abatement of pollution in the Hudson River for at least five years. The design for a 'short-period aeration' plant is practically completed and the start of construction of the treatment plant for this project is scheduled for 1968. With a four-year construction period, start of operation is scheduled for 1972. This will just about meet New York City's commitment to the New York State Department of Health and the Interstate Sanitation Commission to complete all projects involved in the Basic Program by 1972. Any interruptions to this stated objective and the completion of the North River Project would mean not meeting this city's commitment with the attending criticism that this entails.

"Holding-the-Line" on the present design for 'short-period' aeration treatment at North River with possible future conversion to 'modified-aeration' treatment by plant extension south of the present site is in the best interest of all involved agencies.

Water quality has been discussed in general in Section II of this presentation. It is the avowed intention

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of the City of New York to pursue studies and research directed towards improvement in treatment and operating techniques in an overall endeavor to upgrade treatment potential and reduce costs.

In conclusion, Section IV of this presentation indicates that if the treatment processes at all 'modified-aeration' plants, except for the North River plant, are converted to 'step-aeration' and that when treatment at the North River plant is converted from 'short-period aeration' to 'modified-aeration,' then the combined potential of all New York City's plants will result in an average overall BOD removal of about 90% for the total wastewater of the City of New York. This objective is, of course, a far-reaching departure from the objective of the original Basic Program developed for the treatment of the city's wastewater. It involves considerable reconstruction and expansion of existing facilities at huge capital costs extending over a considerable length of time.

V. AUXILIARY (MARGINAL) WATER POLLUTION CONTROL PROGRAM

The basic water pollution control program is designed to cope with gross sewage pollution and has been discussed in some detail in the preceding sections of this

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presentation. The auxiliary water pollution control program is designed to provide the additional protection needed to insure safe bathing at New York City's beaches.

In general, the sewer system in New York City is of the combined type. During periods of rainfall, the flow through the sewers is a mixture of raw sewage and rain water, in varying proportions depending on the rainfall. The sewage treatment plants and intercepting sewer systems are designed for about twice the mean dry weather flow. During storms, combined flows in excess of this amount are discharged directly into the receiving waters. It is estimated that during severe storms as much as 98% of the dry weather flow reaches the receiving waterways.

The Auxiliary Program consists of a series of plants which would impound, disinfect, settle and degrit combined overflows in the vicinity of proposed bathing beaches. The program covers mainly the areas of Jamaica Bay, Eastchester Bay, and the Upper East River, with new beaches proposed at select locations on the shores of Jamaica Bay and the Upper East River. The problem of pollution due to combined overflows and its solution was studied by the consultant engineering firm of Greeley and Hansen. Their findings and recommendations are contained in two reports:

- (1) "Report on Elimination of Marginal Pollution - Jamaica

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Bay - March 1959" and (2) "Report on Elimination of Marginal Pollution - Upper East River - July 1959." These two reports, separately bound, are part of this presentation.

The stated objectives of these studies were defined in part as follows: "The objective...is to study what steps should be taken by the City to obtain water of safe quality so that safe bathing will be possible in the areas outlined herein..." The studies suggested remedial measures to the sewerage system and recommended the construction of storm water treatment works to retain and chlorinate overflows.

The reports further state:

"A. The records of analyses indicate that the waters at the proposed beach locations generally can be expected to be within the quality limitations, during long dry periods.

"B. Immediately following heavy rainstorms, the sanitary quality of the water at the proposed beach locations, deteriorates to a condition with counts above present standards.

"These studies have demonstrated the general relationship between beach water quality and overflows of mingled sewage and storm water. The periodic deterioration of quality must be eliminated by treatment of storm water overflows."

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The reference to quality limitations is to the New York City Health Department standard of a B-coli count not to exceed 2400 per 100 ml. for safe bathing waters.

On the basis of the data available at that time, the consultants rightly concluded that safe bathing water quality could be achieved by retaining and chlorinating combined overflows in storm water treatment works. This is, of course, in addition to the treatment of all dry weather flow in sewage treatment plants as proposed under the Basic Program.

On the basis of these two reports, the City of New York engaged Greeley and Hansen to prepare reports on preliminary designs for: (1) The Spring Creek Marginal Pollution Control Project, (2) The Brooklyn Marginal Pollution Control Project and (3) The Eastchester Bay Marginal Pollution Control Project. Report (1) dated December 1962 covers the studies and the preliminary plans for the Spring Creek Plant. Report (2) dated January 1963 covers the studies and the preliminary plans for the Throgs Neck, Boston Road, Conner Street and Bushnell Avenue Plants in the Eastchester Bay area of the Upper East River.

These reports and preliminary plans are based on conference agreements between the involved personnel of the Department of Public Works and the consultants. They include

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considerable departures from the original concepts of the 1959 reports by the consultants. The changes include the use of sodium hypochlorite for disinfection, covered basins for odor control and appearance, and mechanical means of cleaning the basins.

The Spring Creek preliminary design, after approval by the city, was followed by a contract for the preparation of final plans and specifications for the construction of this project. These plans and specifications are now completed and start of construction of this project is pending determination of eligibility for Federal and State aid.

The city was committed to the program described to insure safe bathing waters at the location of proposed beaches. Unfortunately, however, continued sampling of the involved waters disclosed a problem concerning the persistent apparent high level of dry weather coliform counts. Since 1946 there has been observed a steady rise in the coliform count in the New York City Harbor, despite the fact that New York City has steadily increased its sewage treatment facilities under the Basic Program over this same period of time. The apparent rise in coliform counts is as yet unexplainable in terms of concomitant population growth or other more readily perceived factors. One recognized source of coliform bacteria has been combined overflows. Of pertinent interest with

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regard to coliforms from this source is the fact that during a period of drought during the summer of 1964, when storm waters could not be blamed as a significant source of coliform bacteria, no appreciable reduction in coliform occurred, despite that previous die-away studies of coliforms predicted a decrease in coliform density.

Inasmuch as it was expected that the proposed construction of combined overflow treatment plants would remove a major source of coliform bacteria and hence make possible new bathing beaches at proposed locations in Jamaica Bay and the Upper East River, the Department of Public Works felt that prior to undertaking construction of the storm overflow plants it would be prudent to seek more definite information with regards to coliform densities and survival in the New York harbor over the past 20 years.

New York University was engaged to study and evaluate the New York harbor coliform density problem with the objective of determining from the available data for the period of time in question, whether the apparent rise in coliform bacteria density has in effect occurred, and if data analysis so indicated, the study would then be shifted to determine the possible cause or causes of the increased coliform density in the New York Harbor. The New York University study was completed and a report entitled "New

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York Harbor Coliform Density Pollution Study," dated December 1966, was submitted to the city.

The study based on an extensive analysis of coliform data collected by the New York City Department of Public Works (New York Harbor Pollution Survey) is summarized in part as follows:

"(1) The apparent rise in coliform densities is real, meaningful and significant.

(2) The coliform die-away rates in the harbor waters have not changed significantly.

(3) A definitive explanation for the coliform rise is not apparent."

Part of the summary indicates that "there is an obvious lack of basic information regarding the ecology of the harbor."

The report recommends that,

"(1) The harbor survey program conducted by the City of New York be continued and extended to include improved data processing methods and electronic calculations;

(2) A program to determine the effectiveness of coliform removal by biological, physical, or chemical treatment processes be initiated;

(3) The installation of effective coliform

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reduction facilities at wastewater treatment plants discharging to New York harbor waters be included in pollution abatement planning;

(4) An ecological base line for the New York harbor waters be established;

(5) further investigation of harbor pollution should not be solely concerned with any one individual parameter, but rather should be conducted on the basis that the harbor is a single unified ecological system."

In essence, the New York University study validated the harbor survey data collected by the Department of Public Works.

The "New York Harbor Pollution Survey" and the "New York University Report" are separately bound and made a part of this presentation.

In view of the foregoing, the Department of Public Works did not deem it prudent to commit large sums of New York City's money to the "Auxiliary Water Pollution Control Program" until more definitive answers are obtained regarding the problem of increased coliform densities and estuarine pollution, in general, and, in particular, as the problem applies to the pollution of the New York harbor waters, and with special emphasis placed on the problem of pollution in Jamaica Bay.

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It is the established policy of the City of New York to develop Jamaica Bay as a recreational area. The Department of Parks of the City of New York has expended large sums of money to promote the development of parks, marinas, and other recreational facilities in the Jamaica Bay area. This department has a huge program for beach development in this area which has been deferred pending the resolution by the Department of Public Works of the necessary "Auxiliary Water Pollution Control Program" to insure safe bathing water quality in Jamaica Bay.

The Department of Public Works intends to construct the Spring Creek Auxiliary Water Pollution Control Project as a prototype installation and start of the construction of this project is pending declaration of eligibility for Federal and State aid. This aid should be shortly forthcoming. Together with the construction of the Spring Creek project, the Department of Public Works has applied for Federal aid under the "Demonstration Grant" and "research and development" programs to explore "in-depth" all phenomena involved in the problem of estuarine pollution, as it applies, in general, and it applies, in particular, to the New York Harbor complex. Special emphasis will be placed on the Jamaica Bay area with a detailed "before" and "after" surveillance of the waters of Spring Creek and Jamaica Bay to determine the influence

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of combined overflow treatment at the Spring Creek Auxiliary Water Pollution Control Project on the immediate environment of Spring Creek, together with its influence on Jamaica Bay in regards to water quality.

The evaluation of the Spring Creek Plant as a prototype installation will serve as a basis for all future "auxiliary" plants.

We seek the answers to problems which are national in scope. We can determine at least some of the answers here. A fundamental knowledge of the specific factors contributing to estuarine pollution and the ecological forces affecting the New York harbor complex, as well as the Jamaica Bay area, is necessary for any reliable water resources planning. All of these factors must be explored "in depth" and will be made part of the proposed study.

The objectives of the proposed study can be summarized as follows: (1) to evaluate the operation of the Spring Creek Water Pollution Control Project as a prototype installation, as a means of solving the problems of combined overflow discharges; (2) to evaluate the effect of the Spring Creek Projects on the water quality and biota of Spring Creek, considering Spring Creek as a tidal basin; (3) to evaluate the effect of the Spring Creek Project on the water quality and biota of Jamaica Bay, considering Jamaica

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Bay is an entity; (4) to make an "in-depth" study of the interactions of various sources of pollution such as treatment plant outfalls, sanitary landfills, combined sewage discharges, etc., considering the entire New York City estuarine system; (5) to relate increase of dry weather coliform densities, evidenced in the last decade to specific causes. The material submitted for Federal aid in connection with this study is separately bound and made a part of this presentation.

In conclusion, Section V of this presentation indicates that an "in-depth" study of all factors involved in estuarine pollution is required before definitive steps are taken to progress the "Auxiliary Water Pollution Control Program" to insure waters of safe quality and to permit construction of new beaches on the shores of Jamaica Bay and the Upper East River.

GENERAL CONCLUSIONS

Section II of this presentation indicates an overall BOD reduction of better than 80% in the city's wastewater can be achieved under the Basic Program as originally proposed.

Section III of this presentation indicates that by consolidation of plants in the Borough of Richmond it is possible to reduce the total number of plants required under

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the Basic Program from 18 to 15.

Section IV of this presentation indicates a possible overall BOD removal of approximately 90% in the city's total wastewater can be achieved with the North River Project designed as a 'modified-aeration' plant and all other plants in the city's system designed for 'step-aeration' treatment. This, of course, can only be possible at considerable cost. If the cost involved in making an overall BOD removal of 90% proves to be excessive, an interim program, say to achieve an overall BOD removal of 85%, may be possible at a more reasonable cost. Ultimate decisions on such proposals must be deferred until the program to treat all the city's wastewater is consummated as originally planned under the Basic Program. The City of New York is committed to complete this Basic Program by 1972. Significant departures from this program will be costly and time-consuming and will interfere with meeting this commitment and must, of necessity, be deferred to a period past 1972. In the meantime, the city will pursue feasibility studies to consolidate treatment plants and to upgrade treatment potential.

Section V of this presentation indicates that an "in-depth" study of all facets of estuarine pollution is required before committing large sums of money to progress the 'Auxiliary Water Pollution Program' to treat combined overflows at locations of proposed bathing beaches on the shores of Jamaica Bay and the Upper East River.

SHOWING COMPLETION SCHEDULE FOR NEW YORK CITY.

BASIC WATER POLLUTION PROGRAM

<u>DRAINAGE AREA</u>	<u>PHASE</u>	<u>DATE</u>
Newtown Creek	Complete construction of Plant	Sept. 1967
	Brooklyn Interceptors Completed	
	Except Contract 1A - Johnson Ave. Interceptor	
North River-Interceptors		Oct. 1969
	Complete construction of Manhattan Pumping Station	Jan. 1969
	Interceptors - Manhattan	June 1967
	Start construction	Aug. 1966
Plant	Complete construction	Dec. 1971
	Submit final plans	June 1968
	Start construction	Dec. 1968
	Complete construction	Dec. 1972
Oakwood Beach-Interceptor	Prelim. plans - complete	Oct. 1968 Feb. 1969 Feb. 1971
	Submit final plans	
	Start construction	
	Complete construction	
Plant Extension	Prelim. plans	Apr. 1968
	Submit final plans	May 1969
	Start construction	Sept. 1969
	Complete construction	Dec. 1971
Ozls Head (Chlorination)	Phase 1 - Submit final plans	Jan. 1967
	Start construction	Oct. 1967
	Complete construction	Mar. 1968
	Phase 2 - Submit final plans	Nov. 1967
	Start construction	Feb. 1968
	Complete construction	June 1968
Port Richmond-Bloomfield Interceptors	Submit prelim. plans E. Br.	Apr. 1967
	Submit final plans W. Br.	Oct. 1966
	Submit final plans E. Br. Cont. 1	Dec. 1968
	Submit final plans E. Br. Cont. 2	Dec. 1969
	Start construction W. Br.	Nov. 1967
	Start construction E. Br. Cont. 1	Mar. 1969
	Start construction E. Br. Cont. 2	Mar. 1970
	Complete construction W.Br.	Nov. 1969
	Complete construction E.Br. Cont. 1	Mar. 1971
	Complete construction E.Br. Cont. 2	Mar. 1972
Plant Alterations and Additions	Submit prelim. plans	Sept. 1967
	Submit final plans	Apr. 1969
	Start construction	Oct. 1969
	Complete construction	Dec. 1971

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<u>DRAINAGE-AREA</u>	<u>PHASE</u>	<u>DATE</u>
Red Hook	Interceptors	
	Submit final plans for N. Br.	May 1968
	Submit final plans for S. Br.	Jan. 1969
	Start construction N. Br.	Sept. 1968
	Start construction S. Br.	May 1969
	Complete construction N. Br.	Mar. 1971
	Complete construction S. Br.	May 1972
Plant	Submit prelim. plans	July 1968
	Submit final plans	Oct. 1969
	Start construction	Jan. 1971
	Complete construction	Dec. 1972
Tottenville	Submit prelim. plans	Jan. 1967
	Submit final plans	Oct. 1968
	Start construction	Feb. 1969
	Complete construction	Feb. 1971
Wards Island	Complete construction of Riverdale-Marble Hill project	June 1967
	Submit final plans for rehabilitation of Bronx and Manhattan Grit Chambers	Oct. 1967
	Start construction	Feb. 1968
	Complete construction	Feb. 1969
	All other contracts	
	Submit final plans for expansion of Wards Island Sewage Treatment Plant	July 1968
	Start construction of plant expansion	Nov. 1968
	Complete construction	Apr. 1971
Welfare Island	Submit prelim. plans	Dec. 1968
	Submit final plans	Mar. 1969
	Start construction	Sept. 1969
	Complete construction	Dec. 1971
Fresh Kills	Submit prelim. plans	Dec. 1967
	Submit final plans	Dec. 1968
	Start construction	June 1969
	Complete construction	May 1971

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(The prepared statement of Commissioner Hult
is as follows:

The magnitude of the New York City Water Pollution Control Program can be demonstrated by this simple statement -- yesterday flow was started through the newest of our thirteen modern plants -- Newtown Creek -- a single plant with the capability of affording secondary treatment for the wastewater of 2,500,000 people.

Placing the Newtown Creek Plant "on stream" moves the City another giant step toward the fulfillment of our pledge to this Conference, to the State of New York, and to the Interstate Sanitation Commission -- effective biological treatment of 100% of the dry weather wastewater flow of New York City by 1972. The City's plants are now treating 900 million gallons per day of the daily wastewater flow of 1.3 billion gallons.

The focus of attention of this Conference is properly on the Hudson River. However, the entire estuarine complex of the City is so interrelated, with each main waterway affecting each other and with the Upper Bay serving as a mixing and distribution body, that it is necessary to review the entire concept of New York City's program in order to meaningfully concern ourselves with the Hudson River.

The City of New York hopes that this Conference

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will hasten programs similar to ours in the other communities which share our waterways, so that their treatment facilities will be completed concurrently with the completion of our basic program. At that time our waters will be free of nuisance conditions, the dissolved oxygen levels will rise, marine life will thrive, and the rigorous State stream standards will be met. I look beyond that, however, to a new second phase of our continuing effort.

As in many cities, most of our sewers are of the "combined" type, with the same pipes which convey the dry weather sanitary flows also handling the huge volumes of storm water. In such systems, during rainfall there are inevitable overflows into the surrounding waters -- storm water contaminated with diluted sewage. Such overflows in recreational waters deter the upgrading of existing beaches, the restoration of condemned beaches, and the creation of new beaches.

The administration of this City has already taken the first step to become the leader in creating new beaches in the heart of a sprawling metropolis. We have completed the design of the first prototype "Auxiliary Water Pollution Control Plant," to be constructed at Spring Creek on Jamaica Bay at a cost of 12 million dollars. It is the forerunner of a series of sophisticated, highly instrumented facilities

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designed to impound, settle and disinfect storm flows. These will ring selected sites of high recreational potential such as Jamaica Bay and Eastchester Bay. This prototype has been approved by the Federal Water Pollution Control Administration and the New York State Department of Health for construction aid, and we can proceed immediately to construction as soon as Federal approval to advertise the construction contracts is received. To further set the stage for the implementation of this program, the City administration has already undertaken drainage studies to eliminate pollution from the presently unsewered community of Broad Channel in Jamaica Bay.

The second phase is no timid, halting undertaking. My staff has won enthusiastic support from the New York State Department of Health for an accompanying "in depth" scientific study of all factors which bear upon the quality of bathing waters. This study will utilize a selected team of chemists, bacteriologists and marine biologists, initially concentrating on the area affected by the Spring Creek project. Indeed, the State has voluntarily offered to contribute to this study. Fruitful conferences on this have been held with the Federal Water Pollution Control Demonstration Grant Program, and the Federal approval is awaited, so that this study can proceed concurrently with the Spring Creek prototype evaluation.

There is now even a third phase of the City program.

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New York City remains constantly attuned to the fluid, changing technology of environmental protection. The Bureau of Water Pollution Control of the Department of Public Works, the arm of the City which implements the water pollution control program, has actually made many of the major contributions to the new techniques for more effective or more economical treatment, such as step aeration, modified aeration, mixed sludge thickening, and high rate digestion. As a matter of fact, the current Journal of the Water Pollution Control Association features the fact that New York City is the first major metropolis to introduce the effective use of safe sodium hypochlorite for effluent disinfection to protect the dense population from the hazards of the transportation, storage, and use of liquid chlorine. Because we are leaders and innovators, we have already begun the third phase of our effort, namely, the upgrading of the treatment potential of some of our existing plants. The basic program provides for an overall city-wide average removal of over 80% of the Biochemical Oxygen Demand of the treated wastewater. Preliminary work is proceeding now on feasibility studies for such upgrading, with priority given to such plants as Coney Island and Owls Head, affecting the Coney Island and Sea Gate area. Such upgrading will enhance BOD removals to above 90%. Thus the City is preparing to do, in the future, what it has

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always done in the past, to go beyond the minimum requirements of all the regulatory agencies.

Let us now consider each of these three phases in some detail. Please bear in mind that even before the completion of the basic program in 1972, the first step of the auxiliary program will take place in 1967, and the initial designs of the third phase will be under way in 1968. The City will not rest on its laurels in the early 1970's, but will be moving toward the goals of the 1980's.

The basic program is, of course, the prime concern of this conference. In 1931, long before Federal participation was envisaged, this City, with its wastewater discharging not into a potable watershed, but into a salt water estuarine complex, began its construction program. Despite the stringencies of the Depression, the City taxpayers built 500 million gallons per day of treatment capacity between 1931 and 1945 at a cost of 67 million dollars. In the post-war resumption, between 1948 and 1957, another 400 million gallons per day capacity was added for 117 million dollars. At this point, post-war massive population shifts to the periphery of the City compelled us to give precedence to increasing the capacity and improving the treatment at existing plants. A classic instance is the Rockaway Plant, completed in the fall of 1952, which was doubled in capacity by 1961. Between 1958

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and up to this week when the influent sluice gates open at Newtown Creek, a further 450 million gallons per day capacity was added at a cost of 223 million dollars.

The already existing facilities, with a treatment potential of 1.35 billion gallons per day, would cost three-quarters of a billion dollars at current cost indices.

Of course, the facilities are designed for the projected flows in their respective drainage areas for the next twenty to thirty years, and provision must also be made for areas not yet completely sewered. But already 900 million gallons per day are now being treated, of which 892 million gallons per day are receiving biological secondary treatment.

Of the thirteen plants, six are designed for the step aeration process, which New York City experience shows has consistently yielded 92% removal of the raw Biochemical Oxygen Demand (BOD). These plants are Wards Island, Hunts Point, 26th Ward, Jamaica, Tallman Island, and Bowery Bay, with a combined capacity of 600 MGD. Although some of these plants are now operated only seasonally to their full design intent, in 1966 we committed ourselves to operate them to full removal potential the year round within the next two years.

The other seven plants are virtually all presently designed for the "modified aeration" process to yield removals in the 70% range. We will go beyond this in our third phase,

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as I will soon explain.

With the additional plants to be built by 1972, as set forth to this Conference in 1965 and as committed in 1966 to the New York State Department of Health, the overall pollutant removal of New York City's wastewater in 1972 will initially be 80%. Although complete documentation on all projected facilities is being submitted to this Conference, I would like to describe the status of the remaining major plants to be built.

The "last frontier" of New York City -- Staten Island -- already has the Port Richmond and Oakwood Beach Plants, both in their "first stage." The City's original Master Plan envisaged four other small plants in still lightly populated areas, Bloomfield, Tottenville, Fresh Kills and Eltingville. We now find it feasible to immediately proceed with the interception and treatment of flows from these areas by an economical system of pumping stations and force mains to the two "super plants." Port Richmond will be expanded from a 10 MGD primary plant to a 60 MGD step aeration plant, embodying the most modern facilities for effective effluent hypochlorination. The Oakwood Beach Plant will be doubled in capacity up to 30 MGD, and ultimately to 60 MGD with complete facilities for step aeration. Negotiations for design work for both of these are in active progress right now. Particular

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emphasis is being placed on effluent dispersion patterns of Oakwood Beach to insure complete compatibility with all future plans for the restoration and upgrading of the Staten Island beaches.

The Red Hook Plant will be built as a step aeration facility on the Brooklyn shorefront on the Lower East River. This upgrading of the original design will, of course, require greater site area, even with our design goals of compact, fully-utilized sites. Searching scrutiny is now being given to the maximum utilization of precious Brooklyn shorefront area by erecting this plant as a contiguous facility with a Department of Sanitation Incinerator and Marine Transfer Station. Firm decisions will be made by the end of this year. Meanwhile, the interceptor design for this plant is well on schedule, with some portions ready for contract.

When the designs of the North River Plant and much of its interceptors were virtually complete, Mayor Lindsay ordered an independent engineering and architectural appraisal of this 200 million dollar project. This was done to insure that this "short-period" aeration plant -- an extremely compact design -- would be not only compatible with the then proposed, but not yet promulgated, new New York State Class I standard, but also to insure its complete esthetic compatibility with the neighboring community and to insure

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making a positive contribution to the offshore vista of the Hudson shoreline. The engineering analysis affirmed the adequacy of the design and even predicated that this plant, by itself, would raise the Hudson, within the City line, to the State standard. The eminent Architect, Philip Johnson, was retained and the Mayor ordered a new bold exterior treatment consistent with his position of improved architecture on all public projects. We are now ready to proceed with State approval. The changes in design to incorporate this urban beautification will delay initial plant construction only until the summer of 1968, but one section of the interceptor is already under contract and designs on other sections are well in hand.

For the basic program as a whole, New York City entered into a stipulation in November 1965, with the State of New York incorporating a timetable for completion of all components. Since then, certain changes became appropriate. The necessary lead time for the Federal Water Pollution Control Administration review of projects, a prerequisite before even advertising contracts, had to be built into this schedule. In addition, the new commitments of the City for step aeration at Port Richmond, Oakwood Beach, and particularly Red Hook, called for revisions of target dates. Also, the City acceded to recent State requests for the provision of effluent

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hypochlorination facilities in all plants, even those not directly affecting recreational waters. All of these changes have been incorporated in a revised stipulation, to be signed within a week or so.

The second phase of our effort to cope with combined sewer overflows will serve the country as a whole because of the close scientific scrutiny of the prototype Spring Creek Plant. New York City conducts harbor surveys each summer, with data going back to 1909. This continuous compilation of data enabled our process control engineers to discern an abnormal increase in coliform population in the last ten years. An exhaustive statistical study by New York University confirmed the validity of our observations. Since this is of significance to all coastal cities, and since this phenomenon manifested itself at a time when the eutrophication of inland waters became apparent, Federal aid was sought to investigate all factors related to estuarine coliform populations. This would include the effects of synthetic detergents, the need for phosphate and other nutrient enrichment, non-fecal coliform sources, the possible role of algae in a symbiotic relationship with bacterial flora, a quantitative assessment of all marine biota in the zone of influence of the Spring Creek Plant, before and after construction. Other parameters, such as the effect of leaching from sanitary landfills and

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the effect of dredging and filling on tidal exchanges in Jamaica Bay will be included. All this, of course, is in addition to the basic monitoring of the Auxiliary Plant in its effective reduction of coliform contributions from impounded and treated combined storm overflow.

This Conference is most earnestly requested to expedite the Federal approval for this study, since data derived in 1968 will be invaluable in the "before and after" evaluation of the Spring Creek Auxiliary Plant.

The foresight of the City engineers has made possible the new third phase. At a time when all regulatory agencies, including the Interstate Sanitation Commission and the New York State Department of Health, approved plain sedimentation plants, our designers, like the fellow in the poker game who said, "I'll see you, and raise you," insisted on providing secondary biological treatment. In many instances, back in the 1930's and 1940's, they also fought for and obtained sites with the capability of expansion to treat more flows, and treat to a higher degree.

Their foresight made it possible to not only increase the Jamaica Plant from 65 MGD to 100 MGD, but to add primary tanks and additional aerators and upgrade its treatment capacity from modified aeration to full step aeration removal. They made it possible to convert Coney Island from

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a primary treatment plant with chemical coagulation to a biological modified aeration plant, and they made possible the second stage of Wards Island, now under design, increasing its step-aeration capacity from 220 MGD to 290 MGD, at the same time adding to this old plant modern thickening and digestion facilities. Similar extensions were made to Bowery Bay, tripling its capacity, as well as Hunts Point, Tallman Island and Rockaway.

The 160 MGD Owls Head and the 110 MGD Coney Island Plants will be converted to step aeration, by maximum utilization of existing sites, even though our original commitment to this Conference did not call for this at all. Although the first phase construction takes priority over this, we are already starting the feasibility studies for this new wave of construction, scheduled for the early 1970's. In 1968 we will also begin a vigorous development and pilot program to improve the modified aeration removal efficiency in the Newtown Creek Plant. The pilot studies will be conducted in the Rockaway Plant and money has already been authorized to initiate this. Thus, we are now preparing for the undoubtedly more rigorous requirements that will come in the future.

I think it appropriate, in the presence of both Federal and State representatives, to consider the impact of their respective aid programs. In 1965, the Mayor of New York

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City pointed out to your first session that in the years from 1957 to 1965, 223 million dollars were spent by the City of New York with reimbursements of 3.4 million dollars from the State of New York, limited to design and borings. Approximately 2.3 million dollars in Federal aid was obtained for construction, under such limited authorizations as existed prior to the Water Quality Act of 1965.

Since 1965 under the New York State Pure Water Bond Act 65 million dollars of the Newtown Creek construction was declared eligible for aid to the amount of 60%, or 39 million dollars. Of this the City has already received 31 million dollars from the State of New York. Direct Federal aid constituted 0.15%, the maximum then allowed of \$250,000 under existing Federal legislation.

Reimbursement for the remainder of the Basic and Auxiliary Water Pollution Abatement Programs will be under the New York State Pure Water Bond Act of 1965 and the Federal Clean Waters Restoration Act of 1966. It is anticipated that eligible design and construction costs will be approximately one billion dollars by 1972. Under the New York State Act, 30% of the eligible cost of construction and design is reimbursible, with provisions for pre-financing up to an additional 30% of the Federal share, in the event that Federal funds for this program are unavailable. It is

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anticipated that under a reimbursement clause in the Federal Act this money will be returned to New York State. On current projects filed, total costs amount to approximately 225 million dollars, of which allotments of State aid are approximately 131 million dollars and Federal aid approximately 4 million dollars, for a total of 135 million dollars, or 60% of the total cost. However, it should be mentioned that under the Federal Act, up to 55% of the eligible costs of a project are potentially reimbursible, which, when added to the State share of 30%, would total 85%. These Federal funds are not presently available. This Conference is requested to convey to the Federal authorities the urgency for appropriations commensurate with the intent of the authorizations and realistically related to the actual needs.

I am now turning over to this Conference a position paper on the scope of our program, the Revised "Schedule A" stipulation for our basic program, and a detailed timetable for the sequence of all construction for the next five years which involves State and Federal approval and participation. Thank you for the opportunity to present our New York City story.)

* * *

MR. STEIN: Are there any comments or questions?

MR. METZLER: I would like to compliment you,

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Commissioner, on this kind of a statement. There has been no place in the country that has seen this kind or this size of program put together before. This is a first.

I want to ask this: This timetable also appears to be a realistic one, and it is very complicated as you think of all of the factors that are involved here.

I have been concerned in the past about whether we actually have the contracting and the engineering capability to move this much construction this fast.

Would you mind commenting on that? Do you think there is enough?

COMMISSIONER HULT: I see no problem with the engineering. We have plenty of large qualified engineering firms here in the City of New York that we can draw on. They have all been involved in the preliminary studies of the projects that we have under way. As I said, the North River Plant is already finished by those engineers.

The question of available construction forces is a problem perhaps, but it is going to be necessary and part of my job to wine and dine some of the general contractors and large contractors who will be finishing these big buildings around town to convince them that there is money in the water, or around the water.

MR. METZLER: Well, my only other comment is to

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say this would not have been possible, I know, and I know you recognize this, without the fine professional staff that New York City has built up over the years, and I hope that you can expand the staff which you will need for the treatment side of the maintenance and operation of the plants.

COMMISSIONER HULT: If I can comment on that, if you people don't stop taking my people away, I'm going to be out of business. (Laughter)

We are finding that public works is a great training ground for engineers, particularly in this area of water pollution, and more and more inquiries are coming in, and I am going to have to turn them down with a threat of civil service excommunication, or something. (Laughter)

MR. STEIN: Are there any other comments or questions?

(No response.)

MR. STEIN: I think, Mr. Hult, that you probably do know that in this field, your group in design and maintenance and operation is regarded as high as any in the country, and I think it is a compliment that these people are taken.

You know, in many areas of this business, when someone talks about a 90 percent plant, if we begin examining what they get, we find they are getting in the 80's or maybe three or

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four 90's in the course of the year. When they talk about an 80 percent plant, they are getting in the 70's and 60's.

When your people design for an 80 percent capacity, for example, and they maintain that rate, they get as close to 80 or the design capacity as anyone in the country, and I think this is indeed a compliment for New York and something that is not often recognized.

It is not just what you put down on paper that counts, although the design group is excellent here as well, but it is the way it is built and the way it is run.

I think the openness of your records and what you do is something that the rest of the country can look to and emulate.

COMMISSIONER HULT: Mr. Chairman, I appreciate your very kind comments. I am sure that tomorrow morning I will have all the fellows sitting in the audience outside my door asking for a raise. (Laughter)

MR. STEIN: If I have done that, I will repeat what I just said.

COMMISSIONER HULT: But, seriously, what we do is a team effort. It can only be done with the engineers from the New York State Department of Health and the Federal people, and your office, as well as the regional offices around.

I know the value of this kind of operation. They

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can make it tough for us, and we can make it tough for them. If we work together, we are all going to come out in 1972 with a clean river.

MR. STEIN: Right.

Now, I am very sympathetic to your project in Jamaica Bay. As a matter of fact, this is one of the great water pollution metropolitan projects that we can put into effect and see the result.

Here we have a potential beach, swimming and recreational area right near a city, within subway distance of most of the metropolitan area, that cannot be used. Unless we get some research to handle the stormwater problem, I am not sure, even putting in the kind of waste treatment facilities we are considering now, whether we can use it; but if we can reclaim this tremendous potential swimming area, we will probably be able to demonstrate that we have been able to give New York one of the greatest gifts possible.

I grew up here. I know Spring Creek very well.

COMMISSIONER HULT: Well, thank you.

MR. STEIN: Thank you very much.

MR. METZLER: At this point, Mr. Chairman, the presentation of the New York State Health Department will have

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two persons speaking for New York.

First, we will have Mr. Arthur Handley, who will make a report on the progress in the two-year period, supplementing the remarks which Governor Rockefeller made, and then, following that, Mr. Shaffer, to give some further dimensions of the financing problem.

Mr. Handley.

STATEMENT OF ARTHUR HANDLEY, ASSOCIATE
DIRECTOR, DIVISION OF PURE WATER, NEW
YORK STATE HEALTH DEPARTMENT

MR. HANDLEY: Chairman Stein, Conferees, Ladies and Gentlemen:

New York State has prepared a report on its progress. We would like to enter this into the record, if possible.

MR. STEIN: Yes. This report will be entered into the record, without objection, as if read.

(The following is the Progress Report of Water Pollution Control of New York State:)

A. Handley

PROGRESS REPORT

WATER POLLUTION CONTROL

NEW YORK STATE

SEPT. 1965 - SEPT. 1967

THE LOWER HUDSON RIVER

AND ITS TRIBUTARIES

DIVISION OF PURE WATERS

NEW YORK STATE DEPARTMENT OF HEALTH

SEPTEMBER 1967

PREFACE

The first federal enforcement conference on pollution of the Lower Hudson River and its tributaries was convened in New York City on September 28, 1965. This report reviews New York State water pollution control activities in the two year period from September 1965 to date.

Many developments in the administratives, legislative and financial portions of the State's water pollution control program, which were proposals at the time of the original conference, have now become working realities. Key changes include voter approval in November 1965 of the \$1 billion construction grant program, implementation of a

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strengthened enforcement program, organization of a Division of Pure Waters in the State Health Department, passage of outlet registration and boat pollution control legislation, and the organization of the State Pure Waters Authority.

Accelerated water pollution control activity and the implementation of new programs during the past two years have served to further establish the State's leadership in the federal-state-local municipal effort required to abate water pollution. This report to the conferees briefly reviews New York State water pollution control activities in the Lower Hudson River drainage basin.

Albany, New York

September 20, 1967

ACTIVITY SUMMARY

Since September 1965, the State has initiated the following activity:

1. Executed 9 construction grant contracts with municipalities to construct wastewater treatment facilities. Applications approved and being processed total 28, with State grants estimated at \$186 million, as compared to \$12 million in federal grants (see Table 1, page 4).

2. Completed 53 actions resulting in formal pollution abatement orders (see Table 2, page 6). All major

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polluters are under order.

3. Accelerated utility planning by (a) coordinating programs with the Hudson River Valley Commission which has a total planning responsibility for the Hudson Valley; (b) completed, under the auspices of the State Conservation Department, a multi-purpose water resources survey of the entire state; (c) have 8 public water supply studies completed or under way for areas including a population of 9.3 million; (d) have 38 sewerage need studies completed or under way for areas with a population of 3 million. The State investment for water supply and sewerage studies totals \$3.2 million. (See Table 3, page 18.)

4. Submitted Water Quality Standards. The State prepared and submitted water quality standard reports as required by the 1965 Water Pollution Control Act for the entire state, including the Lower Hudson River. These standards have been approved by the Secretary of the Interior. Approval of the standards makes the municipalities of the state eligible for an additional 10 percent construction grant. (Note this additional eligibility is discussed in the construction grant portion of this report.)

5. Water Quality Surveillance. An automatic water quality monitor has been installed at Glenmont, New York. A second is planned for installation in the vicinity

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of Bear Mountain this year. Manual sampling stations are operated at 5 locations on the river.

6. Issued 55 operating permits to municipalities and/or industries operating new or expanded collection and treatment facilities. These facilities serve 2.8 million people and construction costs total \$166 million. (See Table 4, page 19.)

7. Organized a Division of Pure Waters within the New York State Health Department. The Division of Pure Waters consists of sanitary and construction engineers, scientists, administrators, engineering technicians and supporting clerical services. The Central Office staff totals 148 persons. Increased staffing at the Department's New York City and White Plains Regional Offices was effected.

8. Implemented the sewage treatment plant maintenance and operation grant program. This incentive program has spurred improved treatment plant operation with resultant water quality improvement. In the lower Hudson River basin, exclusive of New York City, 46 municipalities qualified in 1965 for grants totaling \$490,000. To date, 36 applications have been approved totaling \$381,500 for 1966. There are 6 New York City plants in the area of conference concern. These have been approved, receiving grants of approximately \$2.3 million in 1965 and 1966.

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9. Proceeded with the second year of a three-year intensive study of the water quality and assimilative capacity of the Hudson River. The study will provide the State with a flexible, computerized, analytical model of the response of the Hudson River to the discharge of any organic, thermal, toxic or other waste effluent. The computerized River representation developed will provide the State with a powerful tool for the rapid evaluation of alternative abatement programs. To date, both steady state and time dependent models for conservative and non-conservative pollutants and water quality characteristics have been constructed, programmed, de-bugged and verified for BOD and DO.

Table 1
LOWER HUDSON RIVER BASIN
CONSTRUCTION GRANTS PROJECTS
September 15, 1967

Project Number	Applicant - County	Eligible Project Cost		Grant Amount	
		Federal	State	Federal	State
317	Colonie (T), Albany	200,000	200,000	60,000	60,000
377	Colonie (T), Albany	600,000	600,000	6,000	354,000
258	Hudson (C), Columbia	1,105,170	1,105,170	331,550	331,550
86	Newtown Creek, N.Y.C.	162,924,041	64,488,733	250,000	38,596,507
178	North River, N.Y.C.	220,000,000	220,000,000	2,000,000	130,000,000
357	Owl's Head, N.Y.C.	123,000	123,000	36,900	36,900
166	Tallmans Island, N.Y.C.	6,427,000	304,114	250,000	170,638
214	Wards Island, N.Y.C.	1,460,000	1,405,147	438,000	421,544
363	Wards Island, N.Y.C.	1,031,500	1,031,500	100,000	518,947
378	Arlington SD, Dutchess	2,400,000	2,400,000	24,000	1,416,000
340	Wappinger (T), Dutchess	88,000	88,000	3,520	47,280
265	Cornwall (T), Orange	157,805	157,805	47,340	47,342
368	Cornwall (T), (V), Orange	954,800	954,800	38,192	534,688
352	Goshen (V), Orange	750,000	750,000	40,000	410,000
208	Montgomery (V), Orange	320,000	8,300	160,000	2,500
53	Newburgh (C), Orange	5,683,000	5,683,000	477,320	2,932,480
364	New Windsor (T), Orange	1,650,000	1,650,000	66,000	924,000
362	Walden (V), Orange	300,000	300,000	99,000	90,000
294	Washingtonville (V), Orange	512,000	512,000	168,960	153,600
282	Carmel (T), Putnam	442,000	442,000	132,600	132,600
244	Cold Spring (V), Putnam	500,000	500,000	144,300	155,700

Table 1 (cont'd)
 LOWER HUDSON RIVER BASIN
 CONSTRUCTION GRANTS PROJECTS
 September 15, 1967

Project Number	Applicant - County	Eligible Project Cost		Grant Amount	
		Federal	State	Federal	State
176	Orangetown (T), Rockland	633,800	29,000	183,810	9,000
275	Orangetown (T), Rockland	242,200	242,200	79,920	72,660
290	Orangetown (T), Rockland	3,533,600	3,533,600	1,166,080	1,060,080
9	Piermont (V), Rockland	357,900	357,900	107,370	107,370
274	Rockland Co. SD#1, Rockland	22,521,000	22,521,000	5,087,313	8,425,287
268	Stony Point (T), Rockland	1,619,200	1,619,200	421,740	549,780
232	Ellenville, Ulster	315,776	145,427	94,730	43,628
	Total	433,938,792	328,228,896	11,787,325	186,077,601
388*	Albany Co. SD, Albany	38,253,000	38,253,000	382,530	22,569,270
389*	Rensselaer Co. SD, Rensselaer	18,000,000	18,000,000	180,000	10,620,000
	Sub-Total	56,253,000	56,253,000	562,530	33,189,270
	GRAND TOTAL	490,191,792	384,481,896	12,349,855	219,266,871

* Application being prepared

ENFORCEMENT STATUS, Sept. 1, 1967

HUDSON RIVER BASIN

Table Explanation

Location - municipal subdivision location of non-municipal entities. (T) - Town, (V) - Village, (C) - City

Ownership: Individual - multiple private discharges; no sanitary sewers; community not legally responsible.
If the community fails to install a municipal system, individuals must abate pollution individually or collectively.

Pop. or Flow - 1960 census population of community if known, residency and employment of institution, or industrial waste flow of corporation.

Abatement Status

A - Under Commissioner's Orders

B - Hearing noticed to establish Commissioner's Order

C - Hearing to be noticed during 1967

D - Under Department directive (voluntary compliance)

1 - Identified

2 - Initial conference held

3 - Schedule established

4 - Solution established via preliminary report approval (including special study)

5 - Final plans submitted and approved

6 - Under construction

7 - Completion of construction, installation of facilities or internal modifications

8 - Abatement partially achieved

9 - Abatement achieved

Ordered construction completion - completion date of needed construction, established by Commissioner's Order

Voluntary construction completion - completion date of needed construction, established by Department directive 4/1/72 (expiration date of State grant program) indicates latest possible date; negotiations under way to establish finite schedule.

Waste Source	Location	County	Receiving Waters	Effluent: Raw or Primary	Effluent Type	Ownership: Corp., Inst., Mun. or Ind.	Pop. or Flow	Abatement Status	Ordered Constr. Complet.	Volunt. Constr. Complet.
<u>Lower Hudson River Drainage Basin</u>										
Northside & S. D. #2	Waterford (T)	Saratoga	Mohawk River	Raw	Sanitary	Municipal	2000	A-4	11/1/69	
Mohawk Paper Mills	Waterford (T)	Saratoga	Mohawk River	Raw	Paper	Corporate	1mgd	A-3	7/1/69	
Cluett-Peabody	Waterford (T)	Saratoga	Mohawk River	Raw	Textile	Corporate	1.5mgd	A-3	11/1/69	
Cohoes City		Albany	Mohawk River	Raw	Sanitary	Municipal	20129	A-4	1/1/71	
Mohawk Paper Mills	Cohoes (C)	Albany	Hudson River Trib.	Raw	Paper	Corporate	1.2mgd	A-3	1/1/69	
Troy City		Rensselaer	Hudson River	Raw	Sanitary	Municipal	67492	A-4	1/1/71	
Green Island Village		Albany	Hudson River	Raw	Sanitary	Municipal	3533	A-4	1/1/70	
Manning Paper Co.	Green Island (V)	Albany	Hudson River	Raw	Pulp & Paper	Corporate	7.4mgd	A-3	4/1/70	
Maplewood Sewer District	Colonie (T)	Albany	Hudson River	Primary	Sanitary	Municipal	2500	A-4	7/1/69	
Behr Manning (Norton)	Watervliet (C)	Albany	Hudson River	Raw	Adhesives	Corporate	.4mgd	A-4	9/1/69	
Latham Sewer District	Colonie (T)	Albany	Hudson River Trib.	Primary	Sanitary	Municipal	7200	A-4	7/1/69	
Watervliet City		Albany	Hudson River	Raw	Sanitary	Municipal	13917	A-4	1/1/70	
Watervliet Arsenal	Watervliet (C)	Albany	Hudson River	Raw	Plating	Institutional	.03mgd	D-5		1/1/69
Allegheny Ludlum Steel	Colonie (T)	Albany	Hudson River Trib.	Raw	Metal Fin.	Corporate	1.4mgd	A-4	4/1/70	
Menands Village		Albany	Hudson River	Raw	Sanitary	Municipal	2314	A-4	1/1/70	
Albany-Schenectady Rd. S.D.	Colonie (T)	Albany	Hudson River Trib.	Primary	Sanitary	Municipal	9000	A-4	1/1/70	
West Albany S. D.	Colonie (T)	Albany	Hudson River Trib.	Raw	Sanitary	Municipal	600	A-4	1/1/70	

Waste Source	Location	County	Receiving Waters	Effluent: Raw or Primary	Effluent Type	Ownership: Corp., Inst., Mun. or Ind.	Pop. or Flow	Abatement Status	Ordered Constr. Complet.	Volunt. Constr. Complet.
<u>Lower Hudson River Drainage Basin</u>										
McKownville S. D.	Guilderland (T)	Albany	Hudson River Trib.	Raw	Sanitary	Municipal	1000	A-4	1/1/70	
Tobin Packing Co.	Albany (C)	Albany	Hudson River Trib.	Raw	Slaugh. & Packing	Corporate	.7mgd	A-3	7/1/70	
Albany City		Albany	Hudson River	Raw	Sanitary	Municipal	129726	A-4	1/1/71	
Rensselaer City		Rensselaer	Hudson River	Raw	Sanitary	Municipal	10506	A-4	2/1/70	
Huyck Corp.	Rensselaer (C)	Rensselaer	Hudson River	Raw	Felt	Corporate	.3mgd	A-4	2/1/70	
Sterling Drug	Rensselaer (C)	Rensselaer	Hudson River	Raw	Pharmac.	Corporate	2.4mgd	A-3	1/1/70	
General Aniline	Rensselaer (C)	Rensselaer	Hudson River	Raw	Dyes	Corporate	4.4mgd	A-3	1/1/70	
Delmar - Elsmere S. D.	Bethlehem (T)	Albany	Hudson River Trib.	Primary	Sanitary	Municipal	12000	A-4	9/1/70	
Brown Co. (Ft. Orange)	Schodack (T)	Rensselaer	Hudson River Trib.	Raw	Paper	Corporate	1.4mgd	A-3	7/1/70	
Castleton Village		Rensselaer	Hudson River	Raw	Sanitary	Municipal	1752	A-3	2/1/70	
Ravena Village		Albany	Hudson River Trib.	Primary	Sanitary	Municipal	2410	A-4	1/1/70	
Coeymans Town		Albany	Hudson River Trib.	Raw	Sanitary	Municipal	800	A-4	1/1/70	
New Baltimore Hamlet	New Baltimore (T)	Greene	Hudson River Trib.	Raw	Sanitary	Individuals	400	D-4		1/1/69
West Coxsackie Hamlet	Coxsackie (T)	Greene	Hudson River Trib.	Raw	Sanitary	Individuals	500	D-3		11/1/70
Coxsackie Village		Greene	Hudson River	Raw	Sanitary	Municipal	2849	A-4	11/1/70	
Kinderhook Creek										
Hudson City		Columbia	Hudson River	Primary	Sanitary	Municipal	11075	D-3		4/1/72

Waste Source	Location	County	Receiving Waters	Effluent: Raw or Primary	Effluent Type	Ownership: Corp., Inst., Mun. or Ind.	Pop. or Flow	Abate-ment Status	Ordered Constr. Complet.	Volunt. Constr. Complet.
<u>Lower Hudson River Drainage Basin</u>										
New York Training School	Hudson (C)	Columbia	Hudson River Trib.	Primary	Sanitary	Institutional	500	D-5		1/1/68
Athens Village		Greene	Hudson River	Raw	Sanitary	Municipal	1754	A-4	1/1/69	
Catskill Village		Greene	Hudson River	Raw	Sanitary	Municipal	5825	A-4	10/1/69	
Roeliff-Jansen Kill										
Germantown Hamlet	Germantown (T)	Columbia	Hudson River	Raw	Sanitary	Individuals	400	D-3		7/1/70
Cementon Hamlet	Catskill (T)	Greene	Hudson River Trib.	Raw	Sanitary	Individuals	700	D-3		7/1/70
Valatie Village		Columbia	Kinderhook Creek	Raw	Sanitary	Individuals	1237	D-3		7/1/70
Clermont Fruit Packers	Clermont (T)	Columbia	Roeliff-Jansen Kill Trib.	Raw	Cannery	Corporate	.02mgd	B-3		
Kimberly Clark	Ancram (T)	Columbia	Roeliff-Jansen Kill	Raw	Paper	Corporate	.2mgd	C-3		1/1/69

Waste Source	Location	County	Receiving Waters	Effluent: Raw, Prim. or Sec.	Effluent Type	Ownership: Corp., Inst., Mun. or Ind.	Pop. Flow	Abate- ment Status	Ordered Constr. Completed	Volun. Constr. Complet.
<u>Lower Hudson River Drainage Basin</u>										
Saugerties Village		Ulster	Esopus Creek	Primary	Sanitary	Municipal	0.5mgd	D-3		10/69
Tivoli Village		Dutchess	Hudson River	Primary	Sanitary	Municipal	750	C-2		
			Rondout River							
Highland Sewer District	Lloyd (T)	Ulster	Hudson River	Primary	Sanitary	Municipal	.2mgd	D-3		3/69
Hudson River State Hospital	Poughkeepsie(T)	Dutchess	Hudson River	Primary	Sanitary	Institutional	7100	D-3		3/70
Poughkeepsie City		Dutchess	Hudson River	Primary	Sanitary	Municipal	45,000	C-3		3/70
Poughkeepsie Town		Dutchess	Hudson River	Primary	Sanitary	Municipal	0.4mgd	D-4		10/68
General Builders Supply Corp.	Denning Pt.	Dutchess	Hudson River	Primary	Sanitary	Corporate	80	D-4		7/68
Beacon City		Dutchess	Hudson River	Primary	Sanitary	Municipal	6,000	C-3		5/69
Three Star Anodizing	Wappingers Falls (V)	Dutchess	Fishkill	Raw	Plating & Sanitary	Corporate	.1mgd	C-2		
Texaco	Fishkill (T)	Dutchess	Fishkill	Primary	Sanitary & oil	Corporate	.3mgd	C-2		
Newburgh City		Orange	Hudson River	Primary	Sanitary	Municipal	33,000	A-3	12/68	
Majestic Weaving	Firthcliffe(V)	Orange	Moodna Creek	Raw	Textile	Corporate	1.0mgd	A-4	6/68	
New Windsor Sewer District #2	New Windsor(T)	Orange	Moodna Creek	Primary	Sanitary	Municipal	2,000	D-4		10/68
Cornwall Paper Co.	New Windsor(T)	Orange	Moodna Creek	Raw	Paper	Corporate	0.6mgd	C-2		
Cold Spring Village		Putnam	Hudson River	Primary	Sanitary	Municipal	2,000	A-4	5/69	

Waste Source	Location	County	Receiving Waters	Effluent: Raw, Prim. or Sec.	Effluent Type	Ownership: Corp., Inst., or Mun. or Ind.	Pop. Flow	Abate-ment Status	Ordered Constr. Complet.	Voluntary Construct. Completed
<u>Lower Hudson River Drainage Basin</u>										
Sonotone Corp.	Cold Springs (V)	Putnam	Hudson River	Raw	Sanitary	Corporate		A-3	9/69	
U.S. Military Academy	West Point	Orange	Hudson River	Primary	Sanitary	Institutional	5,000	D-3		1/70
Highland Falls Village		Orange	Hudson River	Primary	Sanitary	Municipal	4,000	D-3		1/70
Palisades Interstate Park Bear Mountain STP	Stony Pt. (T)	Rockland	Hudson River	Primary	Sanitary	Institutional	5,000	D-5		9/68
Camp Smith	Cortland (T)	Westchester	Hudson River Trib.	Primary	Sanitary	Institutional	2,400	D-8		7/67
Peekskill City		Westchester	Hudson River	Primary	Sanitary	Municipal	4mgd	B-3		
Cortland Stone Co.	Peekskill (C)	Westchester	Hudson River	Raw	Stone washings	Corporate	.02mgd	C-3		6/68
Standard Brands Inc.	Peekskill (C)	Westchester	Hudson River	Raw	Fermentation & sanitary	Corporate	1.0mgd .05mgd	A-3	5/68	
Endalite Optical Co.	Peekskill (C)	Westchester	Hudson River	Raw	Abrasives	Corporate	.05mgd	C-3		6/68
Std. Coated Products	Buchanan (V)	Westchester	Hudson River	Raw	Dyes	Corporate	.08mgd	A-6	5/67	
F.D.R. V.A. Hospital	Cortland (T)	Westchester	Hudson River Trib.	Primary	Sanitary	Institutional	3,000	D-5		
Rock Industries (1)	Stony Point (T)	Rockland	Hudson River Croton River	Primary	Aggregate washings	Corporate	1.2mgd	D-4		
Haverstraw Village		Rockland	Hudson River	Primary	Sanitary	Municipal	5,818	D-4		6/68

Waste Source	Location	County	Receiving Waters	Effluent: Raw, Prim. or Sec.	Effluent Type	Ownership: Corp., Inst., or Mun. or Ind.	Pop. Flow	Abatement Status	Ordered Constr. Complet.	Voluntary Construct Completed
<u>Lower Hudson River Drainage Basin</u>										
West Haverstraw Village		Rockland	Hudson River	Primary	Sanitary	Municipal	6,800	D-4		10/68
Garnerville Holding Corp.	Haverstraw (T)	Rockland	Hudson River	Primary	Textile & Metal finish.	Corporate	1.5mgd	D-4		10/68
Kay Fries Chemical	Stony Pt.	Rockland	Hudson River	Primary	Chemical	Corporate	0.01mgd	A-4	12/67	
Rock Industries (2)	Haverstraw (T)	Rockland	Hudson River	Primary	Aggregate Washings	Corporate	1.2mgd	D-4		
N.Y. Central R.R.	Croton (V)	Westchester	Hudson River	Primary	Locomotive wash. & sanitary	Corporate	0.2mgd	A-4	2/70	
Croton-on-Hudson Village		Westchester	Hudson River	Primary	Sanitary	Municipal	6,800	B-4		2/70
Water St. STP	Ossining (V)	Westchester	Hudson River	Primary	Sanitary	Municipal	15,000	D-3		2/70
Sing Sing Prison	Ossining (V)	Westchester	Hudson River	Primary	Sanitary	Institutional	2,000	D-8		
Liberty St. STP	Ossining (V)	Westchester	Hudson River	Primary	Sanitary	Municipal	3,000	D-4		1/70
Scarborough STP	Briarcliff Manor (V)	Westchester	Hudson River	Primary	Sanitary	Municipal	1,000	D-4		12/68
River Road STP	Briarcliff Manor (V)	Westchester	Hudson River	Primary	Sanitary	Municipal	200	D-4		12/68
Chevrolet & Fisher Body	Tarrytown (V)	Westchester	Hudson River	Primary	Paint Spray	Corporate	0.5mgd	C-3		1/70
Upper Nyack Village		Rockland	Hudson River	Primary	Sanitary	Municipal	2010	C-4		10/68

Waste Source	Location	County	Receiving Waters	Effluent: Raw, Prim. or Sec.	Effluent Type	Ownership: Corp., Inst., or Mun. or Ind.	Pop. Flow	Abatement Status	Ordered Constr. Completed	Voluntary Construct. Completed
<u>Lower Hudson River Drainage Basin</u>										
N. Tarrytown Village		Westchester	Hudson River	Primary	Sanitary	Municipal	8,900	B-3		1/70
Tarrytown Village		Westchester	Hudson River	Primary	Sanitary	Municipal	11,100	B-3		1/70
Nyack Village		Rockland	Hudson River	Primary	Sanitary	Municipal	5,195	C-4		10/68
South Nyack Village		Rockland	Hudson River	Primary	Sanitary	Municipal	3,400	C-4		10/68
Jewish Home for Convalescents	Orangetown (T)	Rockland	Hudson River	Primary	Sanitary	Institutional	80	D-4		10/68
Pearl River Sewer District	Orangetown (T)	Rockland	Hudson River	Secondary	Sanitary	Municipal	15,000	A-6	10/68	
Sewer District #2	Orangetown (T)	Rockland	Hudson River	Primary	Sanitary	Municipal	12,000	A-6	10/68	
Sparkill Creek										
Irvington Village		Westchester	Hudson River	Primary	Sanitary	Municipal	.7mgd	B-2		1/70
Continental Can Co., Inc.	Piermont (V)	Rockland	Hudson River	Primary	Paper	Corporate	3.5mgd	A-4	10/68	
Westchester STP	Yonkers (C)	Westchester	Hudson River	Primary	Sanitary	Municipal	410,000	D-2		
Refined Syrups & Sugars, Inc.	Yonkers (C)	Westchester	Hudson River	Raw	Sanitary & Sugar	Corporate	0.8mgd	A-4	10/70	
American Felt Co.	New Windsor (T)	Orange	Quassaic Creek	Raw	Textile	Corporate	0.3mgd	A-3	4/69	
National Gypsum Co.	New Windsor (T)	Orange	Quassaic Creek	Raw	Sanitary & Paper	Corporate	0.5mgd	A-3	4/69	
Ramapo Piece Dye Works	New Windsor (T)	Orange	Quassaic Creek	Raw	Textile	Corporate	0.05mgd	A-3	12/68	

Waste Source	Location	County	Receiving Waters	Effluent: Raw, Prim. or Sec.	Effluent Type	Ownership: Corp., Inst., or Mun. or Ind.	Pop. Flow	Abate- ment Status	Ordered Constr. Comple.	Voluntary Construct. Completed
<u>Lower Hudson River Drainage Basin</u>										
Kingston City		Ulster	Rondout River	Primary	Sanitary	Municipal	3.5mgd	D-3		3/69
New Paltz Village		Ulster	Wallkill River	Primary	Sanitary	Municipal	3,000	D-3		10/69
Wallkill Village		Ulster	Wallkill River	Primary	Sanitary	Municipal	1,215	D-3		4/69
Walden Village		Orange	Wallkill River	Primary	Sanitary	Municipal	4,851	D-4		7/69
Warwick Village		Orange	Wawayanda Creek	Primary	Sanitary	Municipal	4,000	D-3		4/72
Rockland State Hospital	Orangetown (T)	Rockland	Sparkill Creek	Secondary	Sanitary	Institu- tional	1,500	D-4		4/72
New York City	Battery to West 11th St.	New York	Hudson River	Raw	Sanitary	Municipal	79,000	A-6	9/68	
New York City	Canal St. Plant	New York	Hudson River	Raw	Sanitary	Municipal	50,000	A-6	9/68	
New York City	West 11th St. to Harlem River	New York	Hudson River	Raw	Sanitary	Municipal	710,000	A-5	10/70	
New York City	Dyckman St. Plant	New York	Hudson River	Raw	Sanitary	Municipal	39,000	A-5	10/70	
Consolidated Edison Co.	New York (C)	New York	Hudson River	Raw	Sanitary & thermal	Corporate		C-1		
Hoffman School	New York (C)	Bronx	Hudson River	Raw	Sanitary	Institu- tional	125	C-1		
Hebrew Home for the Aged	New York (C)	Bronx	Hudson River	Raw	Sanitary	Institu- tional	550	D-8	1/69	

Table 3

COMPREHENSIVE PUBLIC WATER SUPPLY AND SEWERAGE STUDIES
OCTOBER 1965-SEPTEMBER 1967

COUNTY	WATER POLLUTION CONTROL-COMPREHENSIVE SEWERAGE			COMPREHENSIVE PUBLIC WATER SUPPLY		
	NO.	AREA	COMMENT	NO.	AREA	COMMENT
Albany	37	Albany (C)	Study Report Approved 5/15/67	*43	Albany (C)	Completion Date 5/1/68
		Bethlehem (T)			Cohoes (C)	
		Cohoes (C)			Watervliet (C)	
		Colonie (V)			Colonie (V)	
		Colonie (T)			Green Island (V)	
		Green Island (V)			Menands (V)	
		Guilderland (T)			Ravena (V)	
		Menands (V)			Bethlehem (T)	
		New Scotland (T)			Coeymans (T)	
		Ravena (V)			Colonie (T)	
		Coeymans (T)			Guilderland (T)	
		Voorheesville (V)			Knox (T)	
		Watervliet (C)			New Scotland (T)	
					Berne (T)	
					Westerlo (T)	
					Rensselaerville (T)	
Columbia	*151	Entire County	Completion date 6/5/68	*32	Entire County	
Dutchess	22	Hyde Park (T)	Report Approved 3/15/67			Urban Areas Previously Studied
	*59	South Hyde Pk (T)				
		Poughkeepsie (T)				
		Orangetown (T)				
	*119	Fishkill				
		Wappinger				
		Casper				
*Study started after Oct. 1, 1965						

Table 3

COUNTY	WATER POLLUTION CONTROL-COMPREHENSIVE SEWERAGE			COMPREHENSIVE PUBLIC WATER SUPPLY		
	NO.	AREA	COMMENT	NO.	AREA	COMMENT
Greene	*77	Catskill (T)		*25	Entire County	Report Approved
	*80	Cairo (T)	Report Accepted 2/8/67			
	*189	Entire County				
Orange	*27	Monroe (T)	Report Accepted 3/30/66	*4	Entire County	
		Monroe (V)				
		Harrington (V)				
	*102	Newburg (T)	Report Accepted 1/10/66			
	*154	Entire County	Completion 2/14/68			
Putnam				*16	Entire County	Completion 2/1/68
Rensselaer	18	Sand Lake	Report Accepted 3/29/67			Previously studied by Rensselaer County Health Department
	19	Troy (C)	Report Accepted 1/26/66			
		Brunswick (T)				
		Schaticoke (T)				
		North Greenbush				
	*65	Nassau (V)				
		Nassau (T)				
	*109	Rensselaer (C)				
		E. Greenbush				

* Study started after Oct. 1, 1965

Table 3

COUNTY	WATER POLLUTION CONTROL-COMPREHENSIVE SEWERAGE			COMPREHENSIVE PUBLIC WATER SUPPLY		
	NO.	AREA	COMMENT	NO.	AREA	COMMENT
Rensselaer	*145	Castleton (V)	Report Accepted 6/12/67			
		Schodak (T)				
Rockland	*53	Haverstraw (T)				No Study
		Haverstraw (V)				
		W. Haverstraw (V)				
	54	S. Nyack (V)	Report Accepted			
		Nyack (V)				
		Upper Nyack (V)				
		Grand-View-On-Hudson				
Schoharie	*66	Middleburg (V)	Report Accepted 10/4/66			Application Submitted
		Middleburg (T)				
	*184	Entire County				
Ulster	13	Ulster (T)	Report Approved 2/8/67	*15	Entire Co.	Completion 2/22/68
	44	Esopus (T)	Report Accepted 6/13/67			
	*130	Marlboro (T)				
	*131	Woodstock (T)				
	*136	Rosendale (T)				
		Rosendale (V)				
	*171	Entire Co.				

*Study started after Oct. 1, 1965

Table 3

COUNTY	WATER POLLUTION CONTROL-COMPREHENSIVE SEWERAGE			COMPREHENSIVE PUBLIC WATER SUPPLY		
	NO.	AREA	COMMENT	NO.	AREA	COMMENT
Westchester	5	Croton Watershed	Report Approved	*10	N. West. Co.	
	26	Ossining (T)	Report Approved 3/20/67	*11	Portchester Rye	
		Ossining (V)		*27	Westchester Co. NYC Watershed	
	32	Peekskill (C)				
		Cortlandt (T)				
	47	Briarcliff	Report Approved 5/15/67			
		Manor (V)				
	*110	Peekskill (T)				
		Hollow Brook (T)				
	*173	Entire County				
NYC	7	Wards Island	Report Approved			See CPWS-27 Westchester Co.

* Study started after Oct. 1, 1965

Table 4

Plan Review Activity
September 1965 - 1967

Albany Co.

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Altamont (V)	Altamont	2,200	\$ 113,000	Imhoff tank, standard rate trickling filter, continuous chlorination additions and alterations.
Bethlehem (T)	Bethlehem	1,717	15,000	Additions to existing plant, additional chlorination
Colonie (T)	Leisureville Apts.	300	75,000	Continuous chlorination, tert. treatment
Voorheesville (V)	Salem Hills	400	78,000	Extended aeration, sand filter, continuous chlorination
Colonie (V)	Holiday Inn	250	9,400	Extended aeration, sand filter, continuous chlorination
Colonie (T)	Alb.-Sch'dy Road Sewer District Newton Street Plant	15,000	65,000	Plain settling tank, standard rate trickling filter, continuous chlorination, add. & alt.
Colonie (T)	Lake Shore Park	40,000	80,000	Extended aeration, sand filter, continuous chlorination
<u>Columbia County</u>				
Claverack (T)	Pine Haven County Home	270	32,000	Septic Tank, standard rate trickling filter

Dutchess County

Table 4

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Rhinebeck (T)	Vanderburgh Cove Subd.	160	\$ 83,000	Septic tank, sand filter, continuous chlorination
E. Fishkill (T)	Beekman County Club	200	\$ 60,000	Extended aeration, sand filter, continuous chlorination
Wappinger (T)	Oak Ridge Manor	280	\$ 62,000	Extended aeration, sand filter, continuous chlorination
Fishkill (T)	Hudson View Filt. Corporation	2,252	\$335,000	Contact stabilization, continuous chlorination
Hyde Park (T)	Greenfield Development	1,596	\$210,000	Contact stabilization, sand filter, continuous chlorination
Beekman (T)	Nieun Village Garden Apartments	1,860	\$100,000	Extended aeration, sand filter, continuous chlorination
Beekman (T)	Austin Development	500	\$ 70,000	Extended aeration, sand filter, continuous chlorination
Fishkill (T)	Mountain View Apartments	508	\$ 60,000	Extended aeration, sand filter, continuous chlorination
Hyde Park (T)	Wedgewood Hills Apartment	1,000	\$ 50,000	Extended aeration, sand filter, continuous chlorination
La Grange (T)	Scenic Hills	612	\$ 60,000	Contact stabilization, sand filter, continuous chlorination
La Grange (T)	Deerfield Est.	576	\$ 72,000	Extended aeration, sand filter, continuous chlorination

Dutchess County (cont'd)

Table 4

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Wappinger (T)	Les Chateaux Apts.	1,036	\$ 90,000	Contact stablization, sand filter, continuous chlorination
Wappinger (T)	Mid Point Park Sub.	620	\$ 80,000	Extended aeration, sand filter, con- tinuous chlorination
Wappinger (T)	Chelsea Ridge Apts.	616	\$ 40,000	Extended aeration, sand filter, con- tinuous chlorination
Wappinger (T)	Summit Garden Apts.	1,100	\$ 100,000	Contact stabilization, sand filter, continuous chlorination
Poughkeepsie (T)	Country Club Estates S.D.	40	\$ 400,000	Extended aeration, sand filter, con- tinuous chlorination
Wappinger (T)	Rockingham Farms	50	\$ 200,000	Contact stabilization, sand filter, continuous chlorination
Poughkeepsie (T)	Arlington Sewer District			Engineering Report accepted 5/29/67
Wappinger (T)	Spook Hill Estates			Sewage Corporation - legal action pending
Wappinger (T)	Ye Old Apple Orchard			Engineering report submitted - pending reply from engineer
E. Fishkill (T)	John Jay High School			Report accepted on 8/4/67

Table 4

Greene County

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
N. Baltimore (T)	N. Baltimore	1,900	103,000	Plain settling tank, continuous chlorination
Greenville (T)	Pleasant View Lodge	310	30,250	Septic tank, sand filter, continuous chlorination
Greenville (T)	Pine Springs Vacation Resort	400	6,000	Septic tank, lagoon, seasonal chlorination
Catskill (V)	Catskill			Engineering Report accepted 5/2/67
Coxsackie (T&V)	Coxsackie			Preliminary Report accepted 3/27/67

Table 4

New York City

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Manhattan	North River		\$ 125,400,000	Activated sludge, in design stage, Preliminary Engineering Report approved November 1963. Final plans due September 1967.

Brooklyn

New York City	Newtown Creek	2,500,000	\$ 165,200,000	Activated sludge, under construction, to be in operation by September 1967
New York City	Spring Creek		\$ 10,917,000	Engineering Report accepted by NYSDH now being reviewed by FWPCA Stormwater overflow treatment basin

Table 4

Orange County

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Newburgh (T)	Gidney Sewer District	2,950	\$155,000	Extended aeration, sand filter, continuous chlorination
Wallkill (T)	Silver Lake Mechanics- town Sewer District	12,000	\$300,000	High rate trickling filter, continuous chlorination
Chester (T)	Surrey Meadows	1,200	\$120,000	High rate trickling filter, sand filter
Newburgh (T)	Meadow Hill North	1,500	\$100,000	Contact stabilization, sand filter, continuous chlorination
Goshen (V)	Goshen	15,000	\$750,000	High rate trickling filter, lagoon, continuous chlorination
Monroe (V)	Maple Knolls S. D. #1	900	\$100,000	Activated sludge, sand filter, continuous chlorination
Cornwall (T)	Firthcliff Sewer District	1,200	\$159,000	Extended aeration, continuous chlorination
Woodbury (T)	Woodbury Sewer District	360	\$186,000	Extended aeration, sand filter, continuous chlorination
Wallkill (T)	Scotswood Sewer District	1,000	\$ 50,000	High rate trickling filter, sand filter, continuous chlorination
Blooming Grove (T)	Merywood	4,250	\$100,000	Plain settling tank, high rate trickling filter, continuous chlorination
Newburgh (T)	Meadow Hill	500	\$270,000	Contact stabilization, continu- ous chlorination

Table 4

Orange County

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Goshen (T)	Orange Farms			Report accepted 4/25/67
Woodbury (T)	Woodbury			Engineering report accepted 3/31/67
Newburgh (C)	Newburgh			Engineering report accepted 4/7/67
New Windsor (T)	New Windsor			Plastic Filter media, final plans being prepared by engineer
Washingtonville (V)	Washingtonville			Returned to engineer for revision
Cornwall (T&V)	Cornwall			Report accepted 7/24/67
Maybrook (V)	Maybrook			Engineering report submitted - pending reply from engineer
Walden (V)	Walden			at FWPCA
Cornwall (V&T)	Cornwall S. D.			at FWPCA

Table 4

Putnam County

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comment</u>
Cold Spring (V)	Cold Spring			Engineering Report submitted - pending reply from engineer

Rockland County

Table 4

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Stony Point (T)	Bear Mt. State Park	2,943	\$106,790	High rate trickling filter, continuous chlorination
Clarkstown (T)	Princess Ann Apts.	560	\$64,000	Extended aeration, sand filter, continuous chlorination
Clarkstown (T)	Buckingham Manor Apts.	350	\$60,000	Extended aeration, sand filter, continuous chlorination
Clarkstown (T)	Reyville Est.	276	\$59,000	Extended aeration, sand filter
Ramapo (T)	Orchard Hills	624	\$50,000	Extended aeration, sand filter, continuous chlorination
Stony Point (T)	Stony Point	9,410	\$102,000	Plain settling tank, activated sludge, continuous chlorination
Orangetown (T)	Orangetown	52,000	\$2,130,000	High rate trickling filter, continuous chlorination
Clarkstown (T)	Sewer District #1	100,000	\$4,000,000	Plain settling tank, activated sludge, continuous chlorination
Clarkstown (T)	Sewer District #13	950	\$26,500	Activated sludge, sand filter, continuous chlorination
Clarkstown (T)	Sewer District #8	1,400	\$50,000	Lagoon, continuous chlorination

Table 4

Ulster County

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	
Rochester (T)	Granit Hotel	1,500	\$45,000	Plain settling tank, standard rate trickling filter, continuous chlorination
New Paltz (V)	New Paltz			Report approved 1/16/67

Table 4

Westchester County

<u>Municipality</u>	<u>Project</u>	<u>Design Population</u>	<u>Cost</u>	<u>Comments</u>
Yorktown (T)	Osceola Sewer Dist.		\$160,000	Contact stabilization, sand filter continuous chlorination
Cortland (T)	Baltic Estates			Report approved 1/13/67
Ossining (V)	Water Street			Report accepted 2/2/67

Table 5
SEWAGE TREATMENT PLANT OPERATION AND MAINTENANCE GRANT PROGRAM
SUMMARY REPORT -- Activities 1965

County	Number of Municipal Plants*	Number of Applicants	Number of Communities Approved	Total Cost Operation & Maintenance	Amount State Grant	Applications Disapproved or Withdrawn
<u>1965</u>						
Albany*	12	2	2	\$ 23,490	\$ 7,829	0
Columbia	3	2	2	29,100	9,700	0
Dutchess*	14	2	2	104,667	34,889	0
Orange*	15	6	3	76,288	25,428	3
Putnam	3	2	2	75,709	25,235	0
Rensselaer	1	1	1	15,178	4,984	0
Rockland	16	13	11	274,477	102,692	2
Sullivan*	2	2	1	15,013	5,004	1
Ulster	11	7	7	107,594	35,862	0
Westchester*	18	16	15	713,567	238,393	1
TOTAL 1965	95	53	46	\$1,435,083	\$ 490,016	7

* Lower Hudson Drainage Basin Only

Table 5
SEWAGE TREATMENT PLANT OPERATION AND MAINTENANCE GRANT PROGRAM
SUMMARY REPORT -- Activities 1966

County	Number of Municipal Plants*	Number of Applicants	Number of Communities Approved	Total Cost Operation & Maintenance	Amount State Grant	Applications Disapproved or Withdrawn
<u>1966</u>						
Albany*	12	2	2	\$ 28,108	\$ 9,369	0
Columbia	3	1	1	5,167	1,670	0
Dutchess*	14	4	4	136,612	45,538	0
Orange*	15	12	7	74,068	24,689	1
Putnam	3	2	0			0
Rensselaer	1	1	0			0
Rockland	16	12	5	162,509	54,169	1
Sullivan*	2	1	0			0
Ulster	11	8	6	77,277	25,747	0
Westchester*	18	14	11	661,136	220,377	0
TOTAL 1966	95	57	36	\$1,144,877	381,559	2
TOTAL 1965-66	95	110**	82***	2,579,960	871,575	9

* Lower Hudson Drainage Basin Only

** 110 Applications Received From 68 Different Communities

*** 82 Approvals were Granted for 57 Different Communities

Table 5
NEW YORK CITY -- FISCAL YEARS 1965-1966

<u>PLANT NAME</u>	<u>LOCATION</u>	<u>RECEIVING WATERS</u>	<u>PRESENT FLOW MGD</u>	<u>TOTAL COST OPERATION & MAINTENANCE</u>	<u>AMOUNT STATE GRANT</u>
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1965 Fiscal Year

Bowery Bay	Queens	East River	102	\$1,222,378	\$407,459
Hunts Point	Bronx	East River	108	1,052,650	350,883
Owls Head	Brooklyn	Upper Harbor	85	974,172	324,724
Tallmans Island	Queens	East River	46	879,741	293,247
Wards Island	Manhattan	East River	200	2,175,677	725,226
Total 1965			541	\$6,304,618	\$2,101,539

1966 Fiscal Year

Bowery Bay	Queens	East River	102	\$1,221,877	\$407,293
Hunts Point	Bronx	East River	108	1,216,966	405,655
Owls Head	Brooklyn	Upper Harbor	85	1,052,372	350,791
Tallmans Island	Queens	East River	46	911,218	303,739
Wards Island	Manhattan	East River	200	2,381,039	793,680
Total 1966			541	6,783,472	2,261,158

Totals 1965-1966		541	\$13,088,090	\$4,362,697
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PURE WATER CONSTRUCTION GRANTS PROGRAM

This discussion concerns the status and progress of construction grants activities for the construction of sewage treatment plants under the Pure Waters Program of the State of New York since the signing of the first five State contracts by Governor Rockefeller on September 1, 1966.

Passage of the State legislation on May 12, 1965 and the State referendum of the voters in November 1965 resulted in the means of accomplishing a practical Construction Grants program by the State of New York which would guarantee municipalities 60% of the cost of construction of municipal sewage treatment plants. This 60% consists of the basic 30% State grant, plus up to 30% pre-financing of the Federal share. While this program is confined to municipalities, industry is not precluded from using properly designed municipal waste treatment plants -- subject to mutually agreeable arrangements, sewer use charges, and waste pre-treatment in some instances. Thus, the State of New York has a practical, workable, financially sound incentive which has materially influenced the initiation and continued acceleration of the Pure Waters Program across the state.

On September 1, 1966, the first five State contracts were executed by Governor Rockefeller and the officials of the concerned municipalities. A total of 47 State con-

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tracts have now been formally executed. One hundred twenty-nine more projects have been found acceptable and State contracts will be executed when construction is ready to commence in the next few months. As Governor Rockefeller stated, these involve State grants totaling some \$357 million. The extent of New York's progress is shown in that during the first 11 months of the State program, New York obligated more funds than the Federal government had for projects in the State of New York in the 11 prior years.

Projects in New York State for construction of municipal sewage treatment works are eligible for Federal Water Pollution Control Administration (FWPCA) construction grants under the Federal Clean Water Restoration Act of 1966, or are eligible under prior legislation.

FWPCA funds allocated for New York State projects are not sufficient to provide for the authorized funding, i.e., 50 or 55% under the Clean Water Restoration Act of 1966, or generally 30% under prior legislation.

The amount of this insufficiency for projects approved and in process totals \$693,755,354 as follows:

a. Table 6: \$238,057,871 for projects already approved by the FWPCA and those in FWPCA awaiting approval.

b. Table 7: \$140,156,079 for projects currently being processed by the municipality and the New York State

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Department of Health (NYSDH). Project identification numbers utilized by both the FWPCA and the NYSDH have been assigned to these projects.

c. Table 8: \$315,541,464 for projects in process of preparation by the municipality; i.e., in the planning and preliminary design stage and for which formal Federal and State applications will be submitted when an engineering report can be submitted to the NYSDH. As the State of New York regional comprehensive planning program progresses further, this will result in additional proposed projects, which will be added to the listing in Table 8 when eligible project costs become firm.

The Water Pollution Control Program of the City of New York has a total eligible cost currently of \$1.29 billion. Based upon the current allocation of Federal funds at 1% of the eligible project cost for proposed projects, the Federal participation for the entire program is approximately \$13 million or 1.04% of the total eligible project cost. This compares with State grant participation of approximately \$568 million or 44% of total eligible project cost. Summary details concerning the Federal and State participation in proposed projects, those underway, those completed with grant aid, and those completed without grant aid are included as Table 9. Recognition should be given to

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the outstanding progress of the City of New York in the accomplishment of their overall Water Pollution Control Program, particularly in view of the fact that the City has proceeded at a remarkable rate of progress in advance of substantial Federal and State construction grants. The State also desires to recognize the technical excellence and dedication of the personnel of the New York City Department of Public Works Bureau of Water Pollution Control.

The Clean Water Restoration Act of 1966 authorized Federal funds for the Pure Waters Program. For FY '68, \$450 million was authorized nationally with an allocation for New York State of approximately \$37.6 million. The Federal administration proposed to the Congress an appropriation nationally of only \$203 million, which reduces the New York State allocation to \$14.5 million. This reduction of \$23 million seriously affects the New York State Program. At the present time, until the Congress passes its appropriation, the New York State allocation has been the same as the last fiscal year, '67, or \$9.8 million. This \$9.8 million has all been allocated against current New York State projects with the exception of a few thousand dollars. This means that for the balance of the fiscal year '68, New York State projects can be funded with Federal funds probably only for an additional \$4.7 million. Comparison of this probably available

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\$4.7 million versus the many millions of dollars outlined previously as requirements needs no emphasis. Another comparison of interest is the \$3.35 billion total authorizations under the Clean Water Restoration Act of 1966, as compared to the \$1.7 billion estimated to eliminate pollution in the State of New York. The authorizations nationally are only twice those of the New York State total project costs. If Congress is to finance the Federal Clean Water Program at the 55% figure authorized in the Clean Water Restoration Act of 1966, additional funds must be authorized. For record purposes, the Clean Water Restoration Act of 1966 authorized Federal funds for various years as follows:

<u>Fiscal Year</u>	<u>Authorizations Nationally</u>	<u>Allocations New York State</u>	<u>Proposed Allocation</u>
1968	\$450 Million	\$37,588,750	\$14,530,900
1969	700 Million	60,670,250	-
1970	1 Billion	88,368,050	-
1971	<u>1.25 Billion</u>	<u>111,449,550</u>	<u>-</u>
	\$3.35 Billion	\$298,076,600	

A monthly status report of Federal and State grants for construction of sewage treatment facilities is prepared and is included as Table 10. The report includes a statistical

A. Handley

summary for active construction grants projects. Analysis of the actual and proposed State grant amounts figures indicate that, for active projects, over \$357 million in State funds will be needed in the reasonably near future for the 176 proposed and actual State grant contracts. Since this report is as of August 31, 1967, it is based on State participation of 56%, rather than the 59% now being utilized. These figures will be adjusted accordingly at the time of publication of the September 30 monthly report. This monthly report shows whether individual projects are eligible for Federal participation under the Clean Water Restoration Act of 1966, or are eligible under previous legislation; whether they have Accelerated Public Works or Appalachia additional grants; and whether they have been given the 10% additional grant for compliance with regional comprehensive planning. The report also shows the various dollar amounts of eligible project cost, Federal grant, State grant, Federal payments, and State payments, percent completed, and status comment.

As has been stated, the State of New York and its municipalities are much interested in the reimbursement features of the FWPCA grant program. Municipalities realize that the State of New York accepts each Pure Waters Program project as they arrive, treating each with equal priority, and recommending equivalent Federal participation when the

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project is approved by the FWPCA. Currently, this program is a 1% FWPCA participation and 59% State participation, composed of the 30% basic State grant and 29% pre-financing of the Federal share. This leaves some 54% of the Federal share to be furnished later by the Federal government, either before the completion of construction of the project, or as reimbursement after completion of the project. It is apparent that the lack of Federal funds preclude the financing of the full 55% of Federal participation, and that this situation causes problems administratively for the FWPCA, the State of New York and the municipalities concerned. As Governor Rockefeller has stated, full participation to the limit of existing authorizations is the first step in the solution of these problems. Future consideration of Federal legislation should include review of the necessity for increasing the existing authorization nationally.

The Construction Grants personnel of the FWPCA Region and Sub-Region, specifically Messrs. Lester Sutton and Rocco Ricci, have been outstanding in their assistance, cooperation and coordination with the State of New York and its municipalities, and the efficient operation of their construction grants organization reflects great credit on them and on the FWPCA. The fine support given them by Mr. Thomas Ferry, from his Washington Construction Grants office,

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deserves special mention also.

It is desired also to give recognition to the excellent assistance in water pollution control measures provided by another Federal agency -- the United States Army Corps of Engineers. Three areas deserve special attention: first, the completion of the deepening of the Hudson River navigation channel to Albany, with the Corps of Engineers utilizing State of New York-furnished spoil disposal areas on shore (as opposed to disposal in the River); their cooperation in the proposed solution for the Moriches Bay area in Long Island (by dredging and spoil disposal to the ocean); and finally, their enforcement activities in New York Harbor and upriver. The Corps does not seem to publicize its New York Harbor enforcement activities involving oil pollution, pollution from ships, debris incineration activities, disposal at sea activities, issuance of disposal permits and the supervision thereof, and other related activities. The State commends the Corps for the excellence of its liaison and coordination, the efficiency of their operations, and its results and accomplishments, which have and are materially aiding in abating and controlling water pollution, the objective of Governor Rockefeller's Pure Waters Program.

The State Pure Waters Construction Grant Program is fully implemented, adequately funded, and is progressing

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in excess of expectations. Further assistance through appropriations for increased Federal construction grants would undoubtedly provide further impetus to this rate of progress and reduce the load on New York for pre-financing large portions of the federal share.

TABLE 6
STATED APPROVED PROJECTS WITH
FWPCA APPROVAL OR AWAITING
FWPCA APPROVAL
September 15, 1967

<u>PROJECT NUMBER</u>	<u>APPLICANT</u>	<u>FWPCA FUNDS ALLOCATED</u>	<u>ADDITIONAL FWPCA FUNDS REQUIRED</u>
298	Altamont (V), Albany County	\$ 5,000	\$ 43,750
317	Colonie (T), Albany County	60,000	50,000
377	Colonie (T), Albany County	6,000	324,000
353	Keeseville (V), Clinton County	35,000	328,143
256	Sidney (V), Delaware County	91,350	76,125
108	Canajoharie (V), Montgomery County	223,125	43,834
338	Cooperstown (V), Otsego County	316,416	23,484
339	Milford (V), Otsego County	10,890	17,340
255	Hoosick Falls (V), Rensselaer County	194,880	162,400
369	Canton (V), St. Lawrence County	72,200	920,550
316	Edwards (V), St. Lawrence County	50,550	42,125
320	Potsdam (V), St. Lawrence County	825,000	687,500
291	Schenectady (C), Schenectady County	5,000	40,480
149	Amherst (T), Erie County	600,000	8,297
238	Erie County S.D. #3, Erie County	1,084,300	48,180
370	Erie County Home & Penitentiary	11,880	136,620
324	Tonawanda (T), Erie County	57,000	570,000
359	Lockport (C), Niagara County	253,360	3,104,880
350	Youngstown (V), Niagara County	11,350	7,570
345	Coney Island, New York City	220,000	2,016,630
357	Owl's Head, New York City	36,900	30,750
346	Port Richmond, New York City	200,000	1,745,900
347	Spring Creek, New York City	1,200,000	4,567,850
363	Wards Island, New York City	100,000	467,325
178	North River Interceptor Plant, NYC	2,200,000	119,000,000
356	Caneadea (T), Allegany County	19,700	215,315
354	Friendship (V), Allegany County	97,890	82,075
297	Elmira (C), Chemung County	58,740	39,160
314	Avon (V), Livingston County	25,132	320,433
326	Nunda (V), Livingston County	118,000	98,700
281	Brighton (T), Monroe County	221,920	8,280
327	Brighton S.D. #3, Monroe County	220,000	1,979,450
315	Gates-Chili-Ogden (T), Monroe County	140,790	117,325
152	Greece (T), Monroe County	117,844	16,352
151	Greece (T), Monroe County	31,347	30,903
310	Greece (T), Monroe County	56,820	724,405
287	Penfield (T), Monroe County	5,100	21,690
261	Pittsford (V), Monroe County	43,350	36,125

TABLE 6 (continued)

<u>PROJECT NUMBER</u>	<u>APPLICANT</u>	<u>FWPCA FUNDS ALLOCATED</u>	<u>ADDITIONAL FWPCA FUNDS REQUIRED</u>
375	Rochester (C), Monroe County	\$ 2,000,000	\$ 25,500,000
293	Scottsville (V), Monroe County	20,400	260,100
299	Webster (T), Monroe County	128,312	833,928
330	Hopewell (T), Ontario County	34,800	29,000
273	Victor (V), Ontario County	66,300	55,800
372	Seneca Falls (V), Seneca County	600,480	775,620
331	Corning (C), Steuben County	250,712	493,680
280	Hornell (C), Steuben County	96,900	1,235,475
367	Newark (V), Wayne County	77,500	775,000
312	Dundee (V), Yates County	165,000	110,000
332	Jerusalem (T), Yates County	91,200	131,550
306	Dickinson (T), Broome County	13,590	11,325
228	Endicott (V), Broome County	857,070	295,740
223	Johnson City (V), Broome County	600,000	133,320
226	Kirkwood S.D.#1, Broome County	110,190	708
295	Vestal (T), Broome County	40,450	16,980
263	Port Byron (V), Cayuga County	70,000	37,100
300	Green (V), Chenango County	118,710	98,925
292	Watertown (C), Jefferson County	190,000	210,323
301	Castorland (V), Lewis County	5,000	52,310
360	Hamilton (V), Madison County	20,000	195,600
371	Oneida County S.D., Oneida County	801,160	10,214,790
303	Camden (V), Oneida County	9,960	6,650
302	Kirkland (T), Oneida County	96,690	64,460
234	Camillus (T), Onondaga County	116,910	88,567
319	Camillus (V), Onondaga County	21,350	14,235
358	Ley Creek Modification STP, Onondaga County	220,000	1,594,527
308	Manlius S.D.(V), Onondaga County	39,630	33,025
266	Onondaga County DPW, Onondaga County	1,278,090	189,810
296	Onondaga County Jail, Onondaga County	26,400	26,015
313	Onondaga County, Onondaga County	623,700	415,800
340	Wappinger (T), Dutchess County	3,520	47,520
53	Newburgh (C), Orange County	447,320	2,625,650
167	Trumansburg (V), Tompkins County	137,100	8,971
318	Cedarhurst (V), Nassau County	270,000	13,290
236	Glen Cove (V), Nassau County	36,000	1,107
341	Great Neck (V), Nassau County	87,450	58,547
250	Lawrence (V), Nassau County	427,350	69,122
305	Long Beach (C), Nassau County	85,800	57,200
342	Roslyn (V), Nassau County	19,270	12,850
351	Port Washington S.D., Nassau County	21,000	267,750
361	Nassau County S.D. #3, Nassau County	3,742,180	47,712,795
368	Cornwall (T), Orange County	38,192	486,948
352	Goshen (V), Orange County	40,000	372,500

TABLE 6 (continued)

<u>PROJECT NUMBER</u>	<u>APPLICANT</u>	<u>FWPCA FUNDS ALLOCATED</u>	<u>ADDITIONAL FWPCA FUNDS REQUIRED</u>
364	New Windsor (T), Orange County	\$ 66,000	\$ 841,500
362	Walden (V), Orange County	99,000	66,000
294	Washingtonville (V), Orange County	168,960	112,640
244	Cold Spring (V), Putnam County	144,300	130,700
274	Rockland County S.D.#1, Rockland County	5,087,313	1,668,987
268	Stony Point (T), Rockland County	421,740	64,020
343	Huntington S.D., Suffolk County	10,000	91,530
237	North Port (V), Suffolk County	8,580	1,740
28	Southampton (T), Suffolk County	7,350	1,470
322	Rockland (T), Sullivan County	80,070	66,725
378	Arlington S.D., Dutchess County	96,000	1,224,000
SUB-TOTAL: PROJECT ELIGIBLE FOR 55% - GRANT UNDER THE CLEAN WATER RESTORATION ACT OF 1966			\$235,694,844
SUB-TOTAL: PROJECTS ELIGIBLE FOR 30% GRANT OR LESS UNDER PREVIOUS FEDERAL LEGISLATION			2,363,027
TOTAL: ADDITIONAL FWPCA FUNDS TO BRING ELIGIBLE PROJECTS UP TO AUTHORIZED AMOUNTS			\$238,057,871

TABLE 7

PROJECT APPLICATIONS CURRENTLY BEING PROCESSED
TO BE SUBMITTED TO FWPCA FOR APPROVAL
SEPTEMBER 15, 1967

<u>PROJECT NUMBER</u>	<u>APPLICANT</u>	<u>ELIGIBLE PROJECT COST</u>	<u>FWPCA GRANT FUNDS REQUESTED (55%)</u>
388	Albany Co. S.D., Albany County	\$ 38,253,000	\$ 21,039,150
387	Coeymans (T), Albany County	825,600	454,080
366	Stamford (V), Delaware County	699,250	384,587
389	Rensselaer Co. SD, Rensselaer Co.	18,000,000	9,900,000
279	Salamanca (V), Cattaraugus Co.	1,795,000	987,250
379	Dunkirk (C), Chatauqua County	8,735,000	4,804,250
323	Cheektowaga (T), Erie County	1,833,000	1,008,150
385	Erie Co. SD #3, Erie County	246,530	135,591
391	Tonawanda (T), Erie County	5,500,000	3,025,000
390	Lancaster-Depew-Alden, Erie Co.	11,864,407	6,525,423
376	Oakfield (V), Genesee County	345,000	189,750
382	Middleport (V), Niagara County	703,900	387,145
392	Oakwood Beach, New York City	33,000,000	18,150,000
393	Owl's Head, New York City	17,000,000	9,350,000
394	Red Hook, New York City	53,000,000	29,150,000
395	Ward's Island, New York City	24,000,000	13,200,000
396	Coney Island, New York City	14,000,000	7,700,000
397	Hunts Point, New York City	5,500,000	3,025,000
348	Camp LaGuardia, New York City	200,000	110,000
398	Bowery Bay, New York City	1,900,000	1,045,000
399	Hunt's Point, New York City	1,600,000	880,000
400	Jamaica, New York City	600,000	330,000
401	Oakwood Beach, New York City	100,000	55,000
402	Owl's Head, New York City	600,000	330,000
403	Rockaway, New York City	800,000	440,000
404	Tallmans Island, New York City	1,200,000	660,000
405	26th Ward, New York City	100,000	55,000
406	Riker's Island, New York City	500,000	275,000
325	Chemung Co. SD #1, Chemung County	1,100,000	605,000
374	Churchville (V), Monroe County	500,000	275,000
384	Marion (T), Monroe County	420,000	231,000
381	Penfield (T), Monroe County	813,560	447,458
328	Perinton (T), Monroe County	468,243	257,533
373	Erwin (T), Steuben County	918,000	504,900
380	Sodus (V), Wayne County	589,700	324,335

TABLE 7 (continued)

<u>PROJECT NUMBER</u>	<u>APPLICANT</u>	<u>ELIGIBLE PROJECT COST</u>	<u>FWPCA GRANT FUNDS REQUESTED (55%)</u>
349	Moravia (V), Cayuga County	\$ 610,000	\$ 335,500
335	DeWitt (T), Onondaga County	80,000	44,000
386	Oswego (C), Oswego County	4,254,000	2,339,700
336	Pulaski (V), Oswego County	566,000	311,300
355	Suffolk Co. Comm. Coll., Suffolk Co.	279,550	153,752
365	South Fallsburg SD, Sullivan County	<u>1,329,500</u>	<u>731,225</u>
		\$254,829,240	\$140,156,079

TABLE 8

PROJECT APPLICATIONS BEING
PREPARED BY MUNICIPALITIES
SEPTEMBER 15, 1967

<u>APPLICANT</u>	<u>ELIGIBLE PROJECT COST</u>	<u>FWPCA GRANT FUNDS REQUIRED (55%)</u>
Chazy (T), Clinton County	\$ 305,000	\$ 167,750
Greenport (T), S.D.#1, Columbia County	747,458	411,102
Delhi (V), Delaware County	918,644	505,254
Franklin (V), Delaware County	310,000	170,500
Jay (T), Ausable Forks, Essex County	70,000	38,500
Black Brook (T), Essex County	380,000	209,000
Moriah (T), Essex County	153,000	84,150
Willsboro (T), Essex County	325,000	178,750
Lake Placid (V), Essex County	1,150,000	632,500
Fort Covington (V), Franklin County	1,250,000	687,500
Saranac Lake (V), Franklin County	1,750,000	962,500
Johnstown (C), Gloversville (C), Fulton Co.	6,000,000	3,300,000
Coxsackie (V), Greene County	766,100	421,355
Catskill (V), Greene County	2,034,000	1,118,700
Nelliston (V), Montgomery County	150,000	82,500
St. Johnsville (V), Montgomery County	800,000	440,000
DeKalb Junction (H), St. Lawrence County	252,000	138,600
Fine (T), St. Lawrence County	200,000	110,000
Heuvelton (V), St. Lawrence County	305,000	167,750
Norfolk (T), St. Lawrence County	176,000	96,800
Norwood (V), St. Lawrence County	830,500	456,775
Esperance (V), Schoharie County	183,000	100,650
Schoharie (V), Schoharie County	327,000	179,850
Luzerne (T), Warren County	810,200	445,610
Little Valley (V), Cattaraugus County	479,700	263,835
Olean (C), Cattaraugus County	4,500,000	2,475,000
Brocton (V), Chautauqua County	437,000	240,350
Fredonia (V), Chautauqua County	840,000	462,000
Jamestown (C), Chautauqua County	2,600,000	1,430,000
Westfield (V), Chautauqua County	1,783,600	980,980
Leroy (V), Genesee County	1,017,000	559,350
Elba (V), Genesee County	158,700	87,285
Wheatfield (V), Niagara County	600,000	330,000
Buffalo (C), Erie County	11,000,000	6,050,000
Buffalo-Gansen St. (C), Erie County	1,000,000	550,000
Fresh Kills, New York City	16,500,000	9,075,000
Port Richmond, New York City	57,000,000	31,350,000
Bowery Bay, New York City	13,200,000	7,260,000
Tottenville, New York City	7,300,000	4,015,000
Welfare Island, New York City	2,200,000	1,210,000
Hendrix St, New York City	2,900,000	1,595,000

TABLE 8 (continued)

<u>APPLICANT</u>	<u>ELIGIBLE PROJECT COST</u>	<u>FWPCA GRANT FUNDS REQUIRED (55%)</u>
Paerdegat Basin, New York City	\$20,000,000	\$11,000,000
Fresh Creek, New York City	10,000,000	5,500,000
Throgs Neck, New York City	27,000,000	14,850,000
Boston Road, New York City	6,800,000	3,740,000
Conner Street, New York City	2,900,000	1,595,000
Bushnell Avenue, New York City	5,400,000	2,970,000
Bergen Basin, New York City	57,000,000	31,350,000
Thurston Basin, New York City	34,000,000	18,700,000
Marine Park, New York City	13,000,000	7,150,000
Upper East River-Tallman Island Area,	62,000,000	34,100,000
Upper East River-Bowery Bay Area, NYC	83,000,000	45,650,000
Upper East River-Bronx East River Area, NYC	52,000,000	28,600,000
Coney Island STP Improvement, New York City	200,000	110,000
STP Improvements, New York City	15,000,000	8,250,000
26th Ward, New York City	16,000,000	8,800,000
Waterloo (V), Seneca County	743,000	408,650
Churchville (V), Monroe County	1,600,000	880,000
Perinton (T)-Westside, Monroe County	650,000	357,500
Perinton (T)-Thomas Creek, Monroe County	500,000	275,000
Perinton (T)-Bushnell Basin, Monroe County	280,000	154,000
Spencerport (V), Monroe County	550,000	302,500
Wayland (V), Steuben County	500,000	275,000
Deposit (V), Broome County	360,000	198,000
Union (T), Broome County	139,000	76,450
Sherburne (V), Chenango County	365,884	201,236
Dolgeville (V), Herkimer County	40,000	22,000
Herkimer (V), Herkimer County	1,313,000	722,150
Little Falls (C), Herkimer County	2,938,250	1,616,037
Alexandria Bay (V), Jefferson County	1,000,000	550,000
LaFargeville (H), Jefferson County	400,000	220,000
Clayton (V), Jefferson County	454,000	249,700
Morrisville (V), Madison County	250,000	137,500
Altmar (V), Oswego County	100,000	55,000
Marcy (T), Oneida County	255,000	140,250
Paris (T), Oneida County	50,000	27,500
Oriskany Falls (V), Oneida County	275,000	151,250
Vernon (T), Oneida County	265,000	145,750
Waterville (V), Oneida County	450,000	247,500
Cicero (T), Onondaga County	19,000	10,450
Clay (T), Onondaga County	34,000	18,700
Geddes S.D. Onondaga Co.DPW, Onondaga County	435,000	239,250
Parish (V), Oswego County	215,000	118,250
Waverly (V), Tioga County	450,000	247,500
Dryden (T)-Varna S.D., Tompkins County	130,500	71,775

TABLE 8 (continued)

<u>APPLICANT</u>	<u>ELIGIBLE PROJECT COST</u>	<u>FWPCA GRANT FUNDS REQUIRED(55%)</u>
Newburgh (C), Orange County	\$ 2,760,000	\$ 1,518,000
Warwick (T), S.D. #1, Orange County	50,000	27,500
Woodbury (T), Orange County	730,110	401,560
Tuston (V), Sullivan County	135,000	74,250
Fallsburg (T), Sullivan County	390,000	214,500
Ulster (T), Ulster County	600,000	330,000
Cortland (T), Montrose, Westchester County	2,000,000	1,100,000
Ossining (T), Grotonville, Westchester County	151,000	83,050
Briar Cliff Manor (V), Westchester County	775,000	426,250
Haverstraw (V), Rockland County	2,800,000	1,540,000
Otisville (V), Orange County	250,000	137,500
Cortland (T)-Fawn Bridge; Westchester County	300,000	165,000
	<u>\$ 573,711,646</u>	<u>\$315,541,464</u>

TABLE 9
WATER POLLUTION CONTROL PROGRAM
CITY OF NEW YORK

September 15, 1967

(Amounts are in Thousands)

	CATEGORIES	ELIGIBLE PROJECT COSTS	PROPOSED OR ACTUAL GRANTS	
			FEDERAL	STATE
I	Proposed Projects Sewage and Storm Water Treatment Facilities	\$ 877,500	\$ 482,625 (55%) \$ 8,775 (1%)	\$ 263,250 (30%) \$ 517,725 (59%)
II	Projects Underway Sewage and Storm Water Treatment Facilities	\$ 208,513	\$ 3,248 (1.6%)	\$ 49,712 (23.8%)
III	Projects Completed with Grant Aid- Sewage Treatment Facilities	\$ 14,763	\$ 1,343 (9.1%)	\$ 128 (0.9%)
IV	Projects Completed without Grant Aid- Sewage Treatment Facilities	\$ 185,850	None	None
V	TOTALS	\$1,286,626	\$ 13,366 (1.04)*	\$ 567,585 (44.1)*

* Based upon allocation of Federal funds at 1% of eligible project cost for Proposed Projects.

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF PURE WATERS
CONSTRUCTION GRANTS ACTIVITIES UNIT

TABLE 10

STATUS OF FEDERAL AND STATE GRANTS
FOR CONSTRUCTION OF SEWAGE TREATMENT FACILITIES

August 31, 1967

DISTRIBUTION:

Municipalities listed (1)

Consulting Engineers for projects listed (1)

Federal Agencies:

FWPCA, CGA, Washington (1)

FWPCA, CGA, Boston (1)

FWPCA, CGA, Metuchen (2)

FWPCA, Field Office, Susquehanna (1)

FWPCA, Lake Ontario, Field Station

FWPCA, Lake Erie, Program Office

EDC-DC, Portland (1)

FHA-DA, Syracuse (1)

HUD, New York City (2)

ARC, (NYS) (1)

Delaware River Basin Commission (2)

Interstate Sanitation Commission (3)

State of Connecticut - Department of Agriculture
and Natural Resources (3)

State of New Jersey - Department of Health (3)

State of Pennsylvania - Department of Health (3)

New England Interstate Water Pollution Control
Commission (2)

Ohio River Valley Water Sanitation Commission (2)

International Joint Commission (2)

Interstate Commission on the Lake Champlain Basin (2)

Great Lakes States-Upper Mississippi River Board of
Sanitary Engineers (2)

State of New York:

Executive Chamber - Messrs Garrison, McManus and Persico (1 ea)

Senate Finance Committee - Mr Mason (1)

Assembly Ways and Means Committee - Dr Miller (1)

Pure Waters Authority - Messrs Dudley, Hayduk, and
Saddlemire (2 ea)

Conference of Mayors - Mr Walsh (1)

Association of Towns - Mr Sanford (1)

Hudson River Valley Commission (2)

Water Resources Commission Members (1 ea)

Office of Planning Coordination (1)

Budget - Messrs Collins and Russo (1 ea)

Audit and Control - Messrs Meek, Lanahan and Ippolite (1 ea)

Conservation - Mr Montanari (2)

Labor - Mr Capuana (1)

Local Government - Messrs Redmond and Kyle (1 ea)

NYSDH Central Office - Drs Ingraham, Larimore, Fleck, Baker,
Quinlivan; Messrs Metzler, Haberer, Hennigan, Handley,
Stevens, Grossman, Garvey, Bogedain, Bumstead,
Russelmann, MacHarg, Henry, Hill, J. Coffey, Hoffman
Burns, Burke, Longood, Boyle, Mrs Spargo and
Mrs Armstrong (1 ea)

BED-6: BWWUM-3

NYSDH NYC Office - Dr. Dickson (1)

RHD (3 ea); Dist Engrs (1 ea); County Engrs (1 ea); City
Engrs (1 ea)

This report of the status of Federal and State grants for construction of sewage treatment facilities includes all active projects on which an application (Federal and/or State) has been received. Projects are included on this report until final payments are made, and are then listed on a separate Inactive Project Report which is published semiannually in March and September.

The data contained herein represents the latest status information available as of the date of the report. Sources of the data are the Federal Water Pollution Control Administration (FWPCA), the New York State Department of Health (NYSDH), the Regional Health Engineers, the City (C), Town (T), Village (V), or County (Co) involved (or their Sewer Agency or District), and their Consulting Engineers and Construction Contractors.

State of New York Grant Contracts are executed with the Applicants only after the following actions have been completed: Drawings and specifications have been approved by both NYSDH and FWPCA, NYSDH has issued construction permit, FWPCA has issued joint FWPCA-NYSDH authority to advertise, construction bids have been reviewed by NYSDH and FWPCA, real estate is clear, FWPCA has issued the joint FWPCA-NYSDH authority to award construction contracts, and FWPCA has issued their Part B.

Comments and questions regarding projects, and the reporting of inaccuracies in this report, should be directed to the following Construction Grants Activities Program Engineer (CGAPE) personnel:

<u>For Projects In:</u>	<u>Engineer</u>	<u>Telephone Number</u>	<u>Alternate</u>
Buffalo Health Region	Mr. William C. LaRow, Jr.	518-474-5052 or 5048	Mr. James B. McNally
Rochester Health Region	Mr. Rocci R. Grimaldi	518-474-5052 or 5048	Mr. James B. McNally
Syracuse Health Region	Mr. George D. Freeman	518-474-5048	Mr. Ernest F. Trad
Albany Health Region	Mr. Virgil L. Gillham, Jr.	518-474-5020	Mr. Ernest F. Trad
White Plains Health Region	Mr. Robert J. Alpher	518-474-5045 or 5043	Mr. Francis W. Kelly
New York City	Mr. Francis W. Kelly	518-474-5047 or 5046	Mr. William K. Shaffer

Responsible supervisory personnel, other than CGAPE's, are:

<u>Title</u>	<u>Name</u>	<u>Telephone Number</u>
Program Management Administrator	Mr. Felix H. Heilpern	518-474-5052 or 5043
Assistant Program Management Administrator	Mr. George W. Wallace	518-474-5052 or 5048
Assistant for State Contracts	Mr. Norman H. Nosenchuck	518-474-5043 or 5045
Assistant Chief, Construction Grants Activities	Mr. Francis W. Kelly	518-474-5047 or 5046
Chief, Construction Grants Activities	Mr. William K. Shaffer	518-474-5046 or 5047

STATISTICAL SUMMARY FOR CONSTRUCTION GRANTS PROJECTS LISTED ON STATUS REPORT

<u>New York State Projects</u>	<u>Number of Active Projects</u>	<u>Eligible Project Cost</u>	<u>Grant Amounts</u>	<u>Payments To Date</u>
<u>Federal Grants</u>				
Proposed:	(36)	(\$487,808,873)	(\$19,203,746)**	None
Actual:	<u>155</u>	<u>326,856,776</u>	<u>34,516,055</u>	<u>\$18,145,276</u>
Total:	191	\$814,665,649	\$53,719,801	\$18,145,276
 <u>State Grants:</u>				
Proposed:	(129)	(\$558,639,137)	(\$307,873,045)***	None
Actual:	<u>47</u>	<u>98,264,459</u>	<u>49,393,980</u>	<u>\$35,288,382</u>
Total:	176	\$657,527,636	\$357,267,025	\$35,288,382

**Recommended Federal grants are based upon the availability of Federal (FWPCA) funds for New York State projects. Based upon the proposed appropriation of the Federal Administration, this will result in Congressional appropriation of only \$203,000,000 nationally for FY68 instead of the \$450,000,000 authorized in the Clean Water Restoration Act of 1966. This action will result in only \$14,530,900 to be allocated for New York State projects, instead of \$37,588,750. Governor Rockefeller has advised the appropriate committees of the Senate and the House of Representatives of the requirement for Federal funds for FY68 to provide for the authorized maximum percentages (55% under the Clean Water Restoration Act of 1966, and generally 30% under prior legislation), and strongly recommended Congressional appropriation of \$450,000,000 nationally for FY68. The FWPCA has also been furnished State of New York program requirements. Congress has not yet acted upon the Federal Administration proposal. Since April 1967, new projects have been programmed at 4% FWPCA participation and 56% State participation. Unless the Congress appropriates the authorized \$450,000,000 nationally (with \$37,588,750 instead of \$14,530,900 for New York State projects), the 4% FWPCA participation will have to be reduced to 1% FWPCA participation (with 59% State participation).

***Proposed State grants are programmed on basis of State guaranteeing 60% (currently 4% Federal and 56% State).

STATISTICAL SUMMARY BY REGION

	<u>Number of Active Projects</u>	<u>Eligible Project Cost</u>	<u>Grant Amounts</u>	<u>Payments To Date</u>
<u>ALBANY REGION</u>				
FEDERAL GRANTS:				
Proposed:	(5)	(\$58,377,850)	(\$2,334,970)	None
Actual:	<u>20</u>	<u>15,811,920</u>	<u>5,237,007</u>	<u>\$3,188,410</u>
TOTAL:	25	\$74,189,770	\$7,571,977	\$3,188,410
STATE GRANTS:				
Proposed:	(19)	(\$65,957,697)	(\$35,622,641)	None
Actual:	<u>6</u>	<u>2,898,970</u>	<u>913,440</u>	<u>\$ 489,029</u>
TOTAL:	25	\$68,856,667	\$36,536,081	\$ 489,029
<u>BUFFALO REGION</u>				
FEDERAL GRANTS:				
Proposed:	(7)	(\$19,992,430)	(\$1,165,724)	None
Actual:	<u>14</u>	<u>18,543,448</u>	<u>6,293,381</u>	<u>\$4,863,111</u>
TOTAL:	21	\$38,535,878	7,459,105	\$4,863,111
STATE GRANTS:				
Proposed:	(13)	(\$24,362,491)	(\$12,893,164)	None
Actual:	<u>2</u>	<u>2,984,200</u>	<u>895,260</u>	<u>\$ 452,970</u>
TOTAL:	15	\$27,346,691	\$13,788,424	\$ 452,970
<u>NEW YORK CITY</u>				
FEDERAL GRANTS:				
Proposed:	(1)	(\$200,000,000)	(\$2,000,000)	None
Actual:	<u>14</u>	<u>209,127,681</u>	<u>3,432,382</u>	<u>\$ 802,000</u>
TOTAL:	15	\$409,127,681	\$5,432,382	\$ 802,000
STATE GRANTS:			(\$128,602,436)	
Proposed:	(10)	(\$219,093,306)	<u>39,153,261</u>	None
Actual:	<u>3</u>	<u>66,344,580</u>	<u>\$167,755,697</u>	<u>\$30,674,250</u>
TOTAL:	13	\$285,437,886		\$30,674,250

STATISTICAL SUMMARY BY REGION (continued)

	<u>Number</u> <u>Active Projects</u>	<u>Eligible</u> <u>Project Cost</u>	<u>Grant</u> <u>Amounts</u>	<u>Payments</u> <u>To Date</u>
<u>ROCHESTER REGION</u>				
FEDERAL GRANTS:				
Proposed:	(10)	(\$58,089,243)	(\$3,294,922)	None
Actual:	<u>38</u>	<u>28,007,813</u>	<u>5,304,541</u>	<u>\$2,843,374</u>
TOTAL:	48	\$86,097,056	8,599,463	\$2,843,374
STATE GRANTS:				
Proposed:	(33)	(\$75,010,278)	(\$40,810,544)	None
Actual:	<u>12</u>	<u>5,294,913</u>	<u>1,638,408</u>	<u>\$ 798,996</u>
TOTAL:	45	\$0,305,191	42,448,952	798,996
<u>SYRACUSE REGION</u>				
FEDERAL GRANTS:				
Proposed:	(5)	(\$25,539,000)	(\$1,021,560)	None
Actual:	<u>36</u>	<u>29,569,427</u>	<u>7,374,144</u>	<u>\$3,415,741</u>
TOTAL:	41	\$55,108,427	\$8,395,704	\$3,415,741
STATE GRANTS:				
Proposed:	(26)	(\$39,498,304)	(\$19,942,081)	None
Actual:	<u>13</u>	<u>12,060,991</u>	<u>4,105,278</u>	<u>\$2,299,164</u>
TOTAL:	39	\$51,559,295	\$24,047,359	\$2,299,164
<u>WHITE PLAINS REGION</u>				
FEDERAL GRANTS:				
Proposed:	(8)	(\$126,810,350)	(\$9,386,570)	None
Actual:	<u>33</u>	<u>25,796,487</u>	<u>6,874,600</u>	<u>\$3,032,640</u>
TOTAL:	41	\$152,606,837	\$16,261,170	\$3,032,640
STATE GRANTS:				
Proposed:	(28)	(\$134,717,061)	(\$70,002,179)	None
Actual:	<u>11</u>	<u>8,680,805</u>	<u>2,688,333</u>	<u>\$ 573,973</u>
TOTAL:	39	\$143,397,866	72,678,512	573,973

LEGEND

- () Amounts in parenthesis are proposed projects costs and grant amounts.
 + Plus sign next to project indicates that project has received an additional FWPCA 10% for compliance with comprehensive regional planning.
 * Asterisk indicates the project has received an additional 20% grant from Accelerated Public Works Program in addition to the regular 30% FWPCA grant.
000 Line under project number indicates that project will be compensated under the conditions of the Clean Water Restoration Act of 1966.

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			<u>Amount</u>	<u>Percent</u>			
		<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>		
<u>ALBANY REGION</u>							
388	Albany Co. S. D. Albany	(38,253,000) (38,253,000)	(1,530,000) (21,421,700)	(4) (56)	None None	0	Awaiting establishment of Sewer District, and submission of application and engrg rpt
298	Altamont (V) Albany	162,500 162,500	5,000 92,500	3.08 56.92	None None	15	Under construction
<u>387</u>	Coeymans (T) Albany	(825,600) (825,600)	(33,000) (462,300)	(4) (56)	None None	0	Awaiting application and engineering report
<u>317</u>	Colonie (T) Albany	200,000 (200,000)	60,000 (60,000)	30 (30)	None None	0	Bids taken joint NYSDH-FWPCA approval to award held in abeyance until easements are acquired
<u>377</u>	Colonie (T) Albany	(600,000) (600,000)	(24,000) (336,000)	(4) (56)	None None	0	Additional application infor- mation to be supplied by Applicant
258	Hudson (C) Columbia	1,105,170 1,105,170	331,550 331,550	30 30	269,500 242,550	99	Awaiting request for final inspection
<u>353</u>	Keeseville (V) Clinton	660,260 (660,260)	35,000 (361,150)	5.30 (54.70)	None None	0	Authorized to advertise for bids; held in abeyance for inclusion of additional interceptors
<u>256</u>	Sidney (V) Delaware	304,500 (304,500)	91,350 (91,350)	30 (30)	None None	0	Additional information to be supplied by Applicant

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
		<u>Federal State</u>	<u>Amount</u> <u>Federal State</u>	<u>Percent</u> <u>Federal State</u>	<u>Federal State</u>		
ALBANY REGION (continued)							
366	Stamford (V) Delaware	(699,250) (699,250)	(27,970) (391,580)	(4) (56)	None None	0	Grant application to be returned to Applicant for amendment
180	Port Henry (V) Essex	343,600 (74,349)	162,500 (22,304)	50* (30)	146,200 None	99	Completed; final payment not made technical deficiencies being corrected by Applicant; State pick-up contract being reviewed by Audit and Control
	Franklin County:	No Active Projects					
	Fulton County:	No Active Projects					
	Greene County:	No Active Projects					
	Hamilton County:	No Active Projects					
108	Canajoharie (V) Montgomery	889,864 (133,470)	223,125 (40,040)	29.43 (30)	194,600 None	99	Additional information to be submitted by Applicant for request of final inspection
<u>338</u>	Cooperstown (V) Otsego	618,000 (618,000)	316,416 (185,400)	51.2** (30)	None None	0	ARC grant approved
<u>339</u>	Milford (V) Otsego	51,328 (51,328)	10,890 (19,900)	21.22 (38.78)	None None	0	New application and engineering report to be submitted by Applicant
<u>389</u>	Rensselaer Co.S.D. Rensselaer	(18,000,000) (18,000,000)	(720,000) (10,080,000)	4 56	None None	0	Awaiting establishment of Sewer District, and submission of application and engrg rpt
<u>255</u>	Hoosick Falls (V) Rensselaer	649,600 (649,600)	194,880 (194,880)	30 (30)	None None	0	Engineering report and plans & specs. under review by FWPCA
283	Canton (V) St. Lawrence	77,500 77,500	23,250 23,250	30 30	None None	99	Payments will not be made until sheet of construction of STP under Project 369
369	Canton (V) St. Lawrence	1,805,000 (1,805,000)	72,200 (1,010,800)	4 (56)	None None	0	Grant offer forwarded to applicant

* Percent includes 21.2 ARC grant

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
ALBANY REGION (continued)							
<u>316</u>	Edwards (V) St. Lawrence	168,500 (168,500)	50,550 (50,550)	30 (30)	None None	0	Under construction. State contract being prepared.
196	Ogdensburg (C) St. Lawrence	3,372,620 (75,975)	1,686,310 (22,790)	50* (30)	1,686,310 None	99	Completed; State pick-up contract to be prepared
320	Potsdam (V) St. Lawrence	2,750,000 (2,750,000)	825,000 (825,000)	30 (30)	None None	0	Plans & specs under review by FWPCA
Saratoga County: No Active Projects							
203	Niskayuna (T) Schenectady	1,501,793 900,000	750,896 270,000	50* 30	675,800 229,919	99	Completed; final audit being processed
<u>291</u>	Schenectady (C) Schenectady	82,690 (82,690)	5,000 (44,614)	6.04 (53.96)	None None	15	Under construction; definite location of easement to be obtained by Applicant
195	Sharon Springs (V) Schoharie	150,000 (6,175)	70,500 (2,283)	50* (30)	70,500 None	99	State pick-up contract sent to Applicant
194	Lake George (V) Warren	328,695 63,500	145,500 19,050	50* 30	145,500 16,560	99	Completed; awaiting final State audit
284	Lake George (T) Warren	590,300 590,300	177,090 177,090	30 30	None None	25	Under construction
Washington County: No Active Projects							

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date		Percent Completed	Project Status Comment
		Federal State	Federal State	Federal State	Federal State			
BUFFALO REGION								
279	Salamanca (V) Cattaraugus	(1,795,000) (1,795,000)	(71,800) (1,005,200)	(4) (56)	None None	0	Application and Engrg rpt revisions required from Applicant	
379	Dunkirk (C) Chautauqua	(8,735,000) (8,735,000)	(349,400) (4,891,600)	(4) (56)	None None	0	Awaiting completed application and approved engineering report	
245	Silver Creek (V) Chautauqua	1,543,600 1,543,600	763,156 463,080	49.44** 30	530,300 294,300	95	Under construction	
191	Akron (V) Erie	405,900 None; completed prior to May 12, 1965	202,950	50	177,750	99	Completed; final payment not made; operational difficulties not resolved by Applicant	
149	Amherst (T) Erie	2,027,659 None; completed prior to May 12, 1965	600,000	29.59	413,800	99	Completed; final payment being processed	
175	Amherst(T)SD#16 Erie	1,565,228 None; completed prior to May 12, 1965	469,568	30	398,400	99	Completed; awaiting final audit	
197	Cheektowaga (T) Erie	853,440 (166,000)	422,000 (50,000)	49.45 (30)	288,100 None	99	Completed; State pick-up contract to be prepared	
323	Cheektowaga (T) Erie	(1,833,000) (1,833,000)	(73,320) (1,026,480)	(4) (56)	None None	0	Application returned to Applicant for revision	
193	Erie County SD#2 Erie	2,406,725 (3,864)	1,203,362 (1,159)	50* (30)	1,203,362 None	99	Completed; State pick-up contract to be prepared	
238	Erie County SD#3 Erie	3,774,936 (2,420,674)	1,084,300 (757,187)	28.72 (31.28)	792,500 None	95	Under construction; State pick-up contract being executed; multi-municipal project	
385	Erie County SD#3 Erie	(246,530) (246,530)	(9,860) (138,057)	(4) (56)	None None	0 0	Application under review by NYSDH	
370+	Erie Co.Home & Penitentiary-Erie	220,000 (270,000)	11,880 (151,200)	4.4 (56)	None None	0	FWPCA grant offer accepted by Applicant	

** Percent includes FWPCA 30% Appal 19.44%

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
		Federal State	Federal State	Federal State	Federal State		
BUFFALO REGION (continued)							
123	Hamburg (T) Erie	1,000,871 None; completed prior to May 12, 1965	250,000	24.98	183,900	99	Completed; final payment being processed
164	Hamburg (T) Erie	1,094,786 None; completed prior to May 12, 1965	328,436	30	175,400	99	Completed; final payment not made; deficiency to be resolved by Applicant
257	Lackawanna (C) Erie	1,440,600 1,440,600	432,180 432,180	30 30	176,300 158,670	75	Under construction
<u>324</u>	Tonawanda (T) Erie	1,140,000 (1,140,000)	57,000 (627,000)	5 (55)	None None	0	FWPCA grant offer accepted by Applicant
199	Batavia (C) Genesee	1,429,430 369,523	428,829 110,857	30 30	428,829 None	99	State pick-up contract executed
<u>376</u>	Oakfield (V) Genesee	(345,000) (345,000)	(13,800) (193,200)	(4) (56)	None None	0	Awaiting receipt of approved Engineering Report
<u>359</u>	Lockport (C) Niagara	(6,334,000) (6,334,000)	(253,360) (3,547,040)	(4) (56)	None None	0	FWPCA grant offer forwarded to Applicant
<u>382</u>	Middleport (V) Niagara	(703,900) (703,900)	(28,156) (394,184)	(4) (56)	None None	0 0	Application under review by NYSDH
<u>350+</u>	Youngstown (V) Niagara	34,400 (34,400)	11,350 (10,320)	33 (30)	None None	0	FWPCA grant offer accepted by Applicant
217	Medina (V) Orleans	556,744 78,927	278,370 23,678	50* 30	278,370 None	99	Completed; awaiting final audit

Wyoming County - No Active Projects

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
NEW YORK CITY REGION							
<u>348</u>	Camp LaGuardia New York City	144,000 (144,000)	43,200 (43,200)	30 (30)	None None	0	NYSDH processing of application held in abeyance at Applicant's request
<u>345+</u>	Coney Island New York City	4,066,600 (4,066,600)	220,000 (2,239,883)	5.41 (55.08)	None None	0	FWPCA grant offer accepted by Applicant
229	Hillcrest Center Westchester	213,527 (211,172)	64,058 (63,351)	30 (30)	None None	99	FWPCA and State made final inspection. FWPCA final payment and State pick-up contract being prepared.
109	Jamaica New York City	18,289,687 (254,563)	250,000 (232,819)	1:37 (58.63)	225,000 None	99	Final audit for final Federal payment awaits Applicants submission of several change orders for approval; State pick-up contract being prepared.
321	Jamaica New York City	450,700 450,700	135,210 135,210	30 30	None None	34	Under construction
230	Mt. Kisco New York City	335,800 None; completed prior to May 12, 1965	100,740	30	None	99	FWPCA final inspection awaiting data requested of Applicant
158	Mt. Kisco SPS New York City	470,615 None; completed prior to May 12, 1965	141,184	30	127,000	100	Completed
86	Newtown Creek New York City	162,924,041 64,488,733	250,000 38,596,507	0.15 59.85	225,000 30,357,630	93	Under construction
<u>178</u>	North River New York City	(200,000,000) (200,000,000)	(2,000,000) (18,000,000)	(1) (59)	None None	0	Application under review by NYSDH
<u>357+</u>	Owl's Head New York City	123,000 (123,000)	39,990 (36,900)	33 (30)	None None	0	FWPCA grant offer accepted by Applicant
<u>346</u>	Port Richmond New York City	3,538,000 (3,538,000)	200,000 (1,985,256)	5.65 (54.35)	None None	0	FWPCA grant offer forwarded to Applicant

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
NEW YORK CITY REGION (continued)							
347	Spring Creek New York City	10,487,000 (10,487,000)	1,200,000 (5,350,323)	11.44 (48.56)	None None	0	FWPCA grant offer accepted by Applicant
166	Tallmans Island New York City	5,593,211 (237,271)	250,000 (131,757)	4.47 (55.53)	225,000 None	99	FWPCA final inspection will be scheduled soon; State pick-up contract being prepared
214	Wards Island New York City	1,460,000 1,405,147	438,000 421,544	30 30	None 316,620	95	Under construction. FWPCA withholding payment of \$327,430, pending NYC documentation of auto public liability insurance
363	Wards Island New York City	1,031,500 (1,031,500)	100,000 (518,947)	9.69 (50.31)	None None	0	FWPCA grant offer forwarded to Applicant

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
<u>ROCHESTER REGION</u>							
<u>311</u>	Belmont (V) Allegany	427,300 (427,300)	229,460 (128,190)	53.7** (30)	None None	0	Increase in grant accepted by Applicant
<u>356</u>	Caneadea (T) Allegany	492,700 (483,000)	19,700 (270,480)	4 (56)	None None	0	Grant offer accepted by Applicant
182	Cuba (V) Allegany	302,500 44,600	151,250 13,380	50* 30	151,250 None	99	State pick-up contract executed
<u>354</u>	Friendship (V) Allegany	326,300 (326,300)	97,890 (97,890)	30 (30)	None None	0	Authorized to advertise for bids
<u>325</u>	Chemung Co. SD#1 Chemung	(1,100,000) (1,100,000)	(44,000) (616,000)	(4) (56)	None None	0	FWPCA grant application being processed by NYSDH
<u>297+</u>	Elmira (C) Chemung	178,000 (178,000)	58,740 (53,400)	33 (30)	None None	0	Applicant will request increase in grant
<u>314</u>	Avon (V) Livingston	(628,300) (628,300)	(25,132) (351,848)	(4) (56)	None None	0	FWPCA reviewing plans & specs.
260	Lima (V) Livingston	407,400 407,400	122,220 122,220	30 30	71,600 64,470	99	Awaiting request for final inspection
<u>326</u>	Nunda (V) Livingston	394,000 (394,400)	118,000 (118,000)	30 (30)	None None	0	Authorized to advertise for bids
137	Brighton (T) SD#2 Monroe	151,638 None completed prior to 5/12/65	45,490	30	38,600	99	Completed; final payment not made; addtl info requested by FWPCA
281+	Brighton (T) Monroe	767,333 767,333	221,920 258,650	29.29 33.71	153,000 None	99	Awaiting request for final inspection
<u>327+</u>	Brighton SD #2 Monroe	3,999,000 (3,999,000)	220,000 (2,199,450)	5.5 (55)	None None	0	FWPCA reviewing changes in plans

**Percent includes FWPCA - 30% and ARC - 23.7%

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Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project 'Status Comment
		Federal State	Amount Federal State	Percent Federal State	Federal State		

ROCHESTER REGION (continued)

240	Brockport (V) Monroe	940,000 940,000	282,000 282,000	30 30	227,700 204,930	99	Final inspection made
<u>315+</u>	Gates-Chili-Ogden Monroe (T)	469,300 (469,300)	140,790 (140,790)	33 (30)	None None	0	Authorized to advertise for bids
147	East Rochester (V) Monroe	829,000 (9,000)	248,700 (2,700)	30 30	248,700 None	99	State pick-up contract being prepared
152	Greece (T) Monroe	447,320 None;completed prior to 5/12/65	117,844	26.34	105,700	99	Awaiting correction of operational difficulties by Applicant
151	Greece (T) Monroe	207,500 None;completed prior to 5/12/65	31,347	15.11	28,200	99	Awaiting correction of operational difficulties by Applicant
<u>310+</u>	Greece (T) Monroe	1,420,500 (1,420,500)	56,820 (795,480)	4 (56)	None None	0	Authorized to advertise for bids
202	Henrietta (T) Monroe	543,800 (150,000)	163,140 (5,000)	30 (30)	143,000 None	99	State pick-up contract being prepared
231	Henrietta (T) Monroe	592,992 (300,000)	177,897 (90,000)	30 (30)	177,897 None	99	State pick-up contract being prepared
246	Hilton (V) Monroe	238,000 238,000	71,400 71,400	30 30	41,300 37,170	99	Final inspection made
264	Irondequoit (T) Monroe	623,400 624,400	187,000 187,000	30 30	63,000 147,690	99	Final inspection requested by Applicant
288	Irondequoit (T) Monroe	280,000 280,000	92,400 84,000	33 30	63,000 None	85	Under construction
287	Penfield (T) Monroe	89,300 89,280	5,100 48,468	5.72 54.28	3,700 42,120	99	Federal participation to be increased to 30% prior to effecting final payment

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Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
		Federal State	Federal State	Federal State	Federal State		
ROCHESTER REGION (continued)							
233	Penfield SD#3 Monroe	472,530 (250,000)	141,759 (75,000)	30 (30)	127,500 None	99	State contract being prepared
<u>328</u>	Perinton (T) Monroe	(468,243) (468,243)	(18,730) (262,216)	(4) (56)	None None	0	FWPCA Applic and engrg rpt under review by NYSDH
270+	Perinton (T) Monroe	220,000 (220,000)	73,200 (66,000)	33 (30)	40,800 None	95	Town to resubmit request for grant increase
243	Pittsford (T) Monroe	186,800 186,800	56,040 56,040	30 30	50,300 51,300	99	Awaiting request for final inspection
261	Pittsford (V) Monroe	144,500 (144,500)	43,350 (43,350)	30 (30)	None None	0	Will start construction when contractor receives special pump
192	Rochester (C) Monroe	1,992,608 (69,671)	597,780 (20,001)	30 (30)	318,700 None	99	State contract sent to Applicant for signature
<u>375</u>	Rochester (C) Monroe	(50,000,000) (50,000,000)	(2,000,000) (28,000,000)	(4) (56)	None None	0	Application to be revised by Applicant
<u>293</u>	Scottsville (V) Monroe	510,000 (510,000)	20,400 (285,600)	4 (56)	None None	0	Under construction
299+	Webster (T) Monroe	3,207,800 (3,207,800)	128,312 (1,796,368)	4 (56)	None None	20	Under construction; Town to ask for increase in grant
249	Webster (V) Monroe	747,000 747,000	224,100 224,100	30 30	145,200 130,716	99	Awaiting request for final inspection by Applicant
272	Farmington (T) Ontario	805,000 813,500	241,500 244,050	30 30	134,000 120,600	99	Awaiting correction of construction deficiencies
<u>330</u>	Hopewell (T) Ontario	116,000 (116,000)	34,800 (34,800)	30 (30)	None None	0	Authorized to advertise for bids
157	Phelps (V) Ontario	626,100 42,264	313,050 12,679	50* 30	313,050 None	99	Completed; State payment being processed

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
<u>ROCHESTER REGION</u> (continued)							
<u>273</u>	Victor (V) Ontario	222,000 (222,000)	66,300 (66,300)	30 (30)	None None	5	Under construction
Schuyler County: No Active Projects							
<u>372</u>	Seneca Falls (V) Seneca	(2,502,000) (2,502,000)	(600,480) (1,401,120)	(24)* (56)	None None	0	Grant application being reviewed by FWPCA
<u>331</u>	Corning (C) Steuben	(968,000) (968,000)	(250,712) (542,080)	(25.9)** (56)	None None	0	Grant application cannot be issued by FWPCA until ARC approval is received
<u>373</u>	Erwin (T) Steuben	(918,000) (918,000)	(220,320) (514,080)	(24)* (56)	None None	0	Application under review by NYSDH
<u>280</u>	Hornell (C) Steuben	2,422,500 (2,422,500)	82,365 (1,356,600)	34*** (56)	None None	0	Authorized to advertise for bids
<u>252</u>	Newark (V) Wayne	157,000 157,000	47,100 47,100	30 30	33,900 None	99	Final inspection made: State payment being processed
<u>380</u>	Sodus (V) Wayne	(589,700) (589,700)	(23,948) (335,272)	(4) (56)	None None	0	Application under review by NYSDH
<u>367</u>	Newark (V) Wayne	1,550,000 (1,550,000)	77,500 (852,500)	5 (55)	None None	0	Grant offer forwarded to Applicant
<u>312</u> +	Dundee (V) Yates	500,000 (500,000)	165,000 (150,000)	33 (30)	None None	5	Under construction
<u>332</u>	Keuka Park SD Yates	405,000 (405,000)	91,200 (121,500)	22.52 (30)	None None	0	Awaiting further information from Applicant
<u>145</u>	Penn Yan (V) Yates	510,692 (19,500)	153,277 (5,850)	30 (30)	153,277 None	99	State payment being processed

** Percent includes FWPCA 4% and ARC - 21.9%

*** Percent includes FWPCA 4% and ARC - 30%

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
<u>SYRACUSE REGION</u>							
<u>306</u>	Dickinson (T) Broome	45,300 (45,300)	13,590 (13,590)	30 (30)	None None	5	Under construction; State contract to be executed after real estate is clear
228	Endicott (V) Broome	3,842,700 (2,254,642)	857,070 (850,000)	22.30 (37.70)	457,000 None	99	State pick-up contract forwarded to Applicant for signature; a multi-minicipal project
223	Johnson City (V) Broome	2,444,400 (2,444,400)	600,000 (913,716)	22.62 (37.38)	None None	45	Under construction; State contract being approved by Audit and Control
226	Kirkwood SD#1 Broome	369,660 (10,000)	110,190 (3,000)	29.81 (30)	77,700 None	99	Awaiting request from Applicant for final inspection; State pick-up contract to be prepared; thereafter
<u>295+</u>	Vestal (T) Broome	122,600 (122,600)	40,450 (36,780)	33 (30)	None None	5	Under construction
242	Vestal (T) SD#1 Broome	86,099 (67,966)	25,829 (20,389)	30 (30)	25,829 None	99	State contract to Applicant for signature
271+	Auburn (C) Cayuga	274,900 274,900	90,710 82,470	33 30	71,400 53,280	95	Under construction
211	Gayuga (V) Cayuga	152,100 None; completed prior to May 12, 1965	76,050	50*	None	99	Applicant has not purchased land; plant in operation
<u>349</u>	Moravia (V) Cayuga	(610,000) (610,000)	(24,400) (341,600)	(4) (56)	None None	0	Applicant to submit revised application
263	Port Byron (V) Cayuga	357,000 357,000	70,000 144,200	19.61 40.39	48,200 92,250	95	Under construction
96	Union Spring (V) Cayuga	209,000 None; completed prior to May 12, 1965	62,700	30	56,400	99	Final payment not made; Village and contractor in litigation
285+	Weedsport (V) Cayuga	610,000 610,000	201,300 183,000	33 30	56,000 45,810	80	Under Construction

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Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
		Federal State	Federal State	Percent	Federal State		
SYRACUSE REGION (continued)							
277	Bainbridge (V) Chenango	640,300 640,300	336,500 192,106	52.55** 30	114,500 59,490	55	Under construction
<u>300</u>	Green (V) Chenango	395,700 (395,700)	217,239 (118,710)	54.90**** (30)	None None	0	Bids exceeded authorized amount; new referendum required; ARC grant approved
113	Norwich (C) Chenango	612,100 (3,821)	183,630 (1,146)	30 (30)	165,200 None	99	Final audit completed; State pick-up contract to be executed
292	Watertown (C) Jefferson	1,334,410 (1,334,410)	190,000 (610,646)	14.2 45.8	None None	31	Percent completed revised to reflect increase in scope of project
<u>301</u>	Castorland (V) Lewis	104,200 (104,200)	5,000 (57,518)	4.80 (55.20)	None None	0	Authorized to advertise for bids
254	Canastota (V) Madison	1,015,280 1,015,280	304,584 304,584	30 30	274,100 274,125	99	Final audit completed; final payment awaiting resolution of operational deficiencies
259	Chittenango (V) Madison	491,300 491,300	147,390 147,390	30 30	132,600 128,610	99	Final inspection awaits correction of operational deficiencies
<u>360</u>	Hamilton (V) Madison	392,000 (392,000)	20,000 (215,208)	5.10 (54.90)	None None	0	Authorized to advertise for bids
<u>303+</u>	Camden (V) Oneida	30,200 (30,200)	9,960 (9,060)	33 (30)	None None	5	Construction started
<u>302+</u>	Kirkland (T) Oneida	293,000 (293,000)	96,690 (87,900)	33 (30)	None None	0	Authorized to award contract
<u>371</u>	Oneida Co. SD Oneida	(20,029,000) (20,029,000)	(801,160) (11,216,240)	(4) (56)	None None	0	Application under review by NYSDH
234	DPW Camillus (T) Onondaga	684,925 (684,925)	116,910 (294,039)	17.07 (42.93)	None None	85	Under construction; State contract being prepared

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** Percent includes FWPCA - 7.45% - ARC -45.10%

*** APW Project

**** Percent includes FWPCA - 30% - ARC - 24.90%

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
<u>SYRACUSE REGION (continued)</u>							
<u>319+</u>	Camillus (V) Onondaga	64,700 (64,700)	21,350 (19,410)	33 (30)	None None	0	Authorized to award contract
<u>335</u>	DeWitt (T) Onondaga	(80,000) (80,000)	(3,200) (44,800)	(4) (56)	None None	0	Application under review by NYSDH
<u>358+</u>	Ley Creek Modification to STP, Onondaga	3,299,140 (3,299,140)	220,000 (1,779,556)	6.67 (53.94)	None None	0	FWPCA grant offer accepted by Applicant
<u>308</u>	Manlius (V) SD Onondaga	132,100 (132,100)	39,630 (39,630)	30 (30)	None None	5	Under construction
266+	DPW Onondaga Co. Onondaga	4,893,000 4,893,000	1,278,090 1,773,718	26.12 36.25	993,500 1,031,670	90	Under construction; a multi-municipal project
<u>296+</u>	Onondaga Co. Jail Onondaga	95,300 (95,300)	26,400 (33,183)	27.70 (34,82)	None None	0	Under construction
<u>313+</u>	Onondaga (Co) Onondaga	1,890,000 (1,890,000)	623,700 (567,000)	33 (30)	None None	0	Applicant revising plans & specs
251	Salina (T) Onondaga	476,100 476,100	142,830 142,830	30 30	142,830 None	99	State payment being prepared
225	Central Square Oswego	368,607 290,000	110,582 87,000	30 30	110,582 76,451	99	Final State audit requested
132	Fulton (C) Oswego	1,432,201 1,432,201	250,000 609,320	17.46 42.54	169,200 298,275	95	Plant in operation; awaiting Applicants request for final inspection
386	Oswego (C) Oswego	(4,254,000) (4,254,000)	(170,160) (2,382,240)	(4) (56)	None None	0	Grant application under review by NYSDH
<u>336</u>	Pulaski (V) Oswego	(566,000) (566,000)	(22,640) (316,960)	(4) (56)	None None	0	FWPCA grant application being held by NYSDH pending receipt of revised engr rpt
239	Owego (V) Tioga	675,400 653,100	202,620 195,930	30 30	125,700 149,633	99	Applicant has submitted additional information in preparation for final audit

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			<u>Amount</u>	<u>Percent</u>			
		<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>		
SYRACUSE REGION (continued)							
278	Dryden (V) Tompkins	757,000 757,000	401,520 227,100	53.04** 30	150,900 78,860	60	Under construction
224	Ithaca (C) Tompkins	154,800 (20,000)	46,400 (6,000)	30 (30)	46,400 None	99	State pick-up contract being processed
267	Ithaca (C) Tompkins	327,000 327,000	98,100 98,100	30 30	84,700 63,990	98	Awaiting Applicant's request for final inspection
167	Trumansburg (V) Tompkins	486,905 None; completed prior to May 12, 1965	137,100	28.15	113,000	99	Completed; final payment not made; awaiting Applicant's resolution of difficulties

** Federal Aid under PL 660 - 30% and ARC 214 - 23.04%

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
<u>WHITE PLAINS REGION</u>							
<u>378</u>	Arlington SD Dutchess	(2,400,000) (2,400,000)	(96,000) (1,344,000)	(4) (56)	None None	0	FWPCA application under review by NYSDH
<u>340</u>	Wappinger (T) Dutchess	(88,000) (88,000)	(3,520) (49,280)	(4) (56)	None None	0	Applicant securing title to necessary property
318	Cedarhurst (V) Nassau	944,300 944,300	270,000 296,580	28.59 31.41	None None	0	Construction started; State contract executed
236	Glen Cove (C) Nassau	123,691 (48,000)	36,000 (14,832)	29.10 (30.9)	36,000 None	99	State contract to be prepared
289+	Great Neck SD#1 Nassau	1,115,900 1,115,900	368,240 334,770	33 30	None None	60	Under construction; State contract executed
<u>341+</u>	Great Neck (V) Nassau	265,000 (265,000)	87,450 (79,500)	33 (30)	None None	0	Bids to be received by Applicant on Sept. 26, 1967
250	Lawrence (V) Nassau	1,654,907 1,654,907	427,350 565,594	25.82 34.18	384,600 430,665	99	Awaiting final FWPCA audit
<u>305+</u>	Long Beach (C) Nassau	260,000 (260,000)	85,800 (78,000)	33 (30)	None None	0	State contract being prepared
<u>361</u>	Nassau Co. SDD#3 Nassau	(93,554,500) (93,554,500)	(3,742,180) (52,390,520)	(4) (56)	None None	0	Grant application being processed by FWPCA
190	No. Hempstead (T) Nassau	400,000 (90,000)	120,000 (27,000)	30 (30)	120,000 None	99	State pick-up contract being prepared
130	Oyster Bay SD#1 Nassau	1,161,300 (136,000)	348,390 (41,000)	30 (30)	287,900 None	99	State pick-up contract being prepared
<u>351</u>	Port Washington SD Nassau	525,000 (525,000)	21,000 (294,000)	4 (56)	None None	0	FWPCA grant offer forwarded to Applicant
<u>342+</u>	Roslyn (V) Nassau	58,400 (58,400)	19,270 (17,520)	33 (30)	None None	0	Authorized to advertise for bids

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			<u>Amount</u>	<u>Percent</u>			
		<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>		
<u>WHITE PLAINS REGION (continued)</u>							
265	Cornwall (T) Orange	157,805 157,805	47,340 47,342	30 30	41,400 41,493	99	Final FWPCA & State audit completed
<u>368</u>	Cornwall (T)&(V) Orange	(954,800) (954,800)	(38,192) (534,688)	(4) (56)	None None	0	Grant application being processed by FWPCA.
<u>352</u>	Goshen (V) Orange	750,000 (750,000)	40,000 (410,000)	5.33 (54.67)	None None	0	Bids received by Applicant Aug.28,1967
208	Montgomery (V) Orange	320,000 (8,300)	160,000 (2,500)	50* (30)	160,000 None	99	State pick-up contract forwarded to Applicant for signature
<u>53</u>	Newburgh (C) Orange	(5,683,000) (5,683,000)	(227,320) (3,182,480)	(4) (56)	None None	0	Application being reviewed by NYSDH
<u>364</u>	New Windsor (T) Orange	1,650,000 (1,650,000)	66,000 (924,000)	4 (56)	None None	0	FWPCA grant offer accepted by Applicant
<u>362+</u>	Walden (V) Orange	300,000 (300,000)	99,000 (90,000)	33 (30)	None None	0	Applicant supplying additional info to FWPCA
<u>294+</u>	Washingtonville (V) Orange	512,000 (512,000)	168,960 (153,600)	33 (30)	None None	0	Awaiting FWPCA approval of revised plans and specifications
282	Carmel (T) Putnam	442,000 (442,000)	132,600 (132,600)	30 (30)	None None	99	State pick-up contract being prepared
244	Cold Spring (V) Putnam	500,000 (500,000)	144,300 (155,700)	28.86 (31.14)	None None	0	Redesign of treatment plant under review by NYSDH
176	Orangetown (T) Rockland	633,800 (29,000)	183,810 (9,000)	29 (31)	183,810 None	99	State pick-up contract being prepared
275+	Orangetown (T) Rockland	242,200 242,200	79,920 72,660	33 30	67,500 62,550	99	Awaiting final audit

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			Amount	Percent			
		Federal State	Federal State	Federal State	Federal State		
WHITE PLAINS REGION (continued)							
290+	Orangetown (T) Rockland	3,533,600 3,533,600	1,166,080 1,060,080	33 30	None None	40	Under construction
9	Piermont (V) Rockland	357,900 357,900	107,370 107,370	30 30	None None	95	Under construction; negotiations for tie-in with adjacent Village under way
274+	Rockland Co. SD#1 Rockland	(22,521,000) (22,521,000)	(5,087,313) (8,425,287)	(22.59) (37.41)	None None	15	Execution of State contract awaiting clear title for outfall real estate
268+	Stony Point (T) Rockland	1,619,200 (1,619,200)	421,740 (549,780)	26.05 (33.95)	None None	25	Bids for plant rejected; plant being redesigned
343+	Huntington SD Suffolk	184,600 184,600	10,000 (100,754)	5.42 54.58	None None	0	Final plans under review by NYSDH
237	Northport (V) Suffolk	34,400 34,400	8,580 12,060	24.94 35.06	None None	60	Under construction
28	Southampton (T) Suffolk	29,400 None, completed prior to May 12, 1965	7,350	25.00	5,000	99	Completed; final payment dependent on resolution of deficiencies by Applicant
355	Suffolk Co. Comm. College-Suffolk	(279,550) (279,550)	(83,865) (83,865)	(30) (30)	None	0	FWPCA applic being held by NYSDH pending submission of additional information
253	Liberty (V) Sullivan	332,200 332,200	99,600 99,600	30 30	9,900 None	95	Construction near completion and plant under test
322	Rockland (T) Sullivan	266,900 (266,900)	80,070 (80,070)	30 (30)	None None	0	Applicant to receive new bids on Sept. 21, 1967
365	South Fallsburg SD Sullivan	(1,329,500) (1,329,500)	(53,180) (744,520)	(4) (56)	None None	0	FWPCA grant applic being reviewed by NYSDH
232	Ellenville Ulster	315,776 145,427	94,730 43,628	30 30	94,730 39,265	99	Awaiting final State audit
247	Buchanan (V) Westchester	175,500 162,166	52,650 48,649	30 30	32,900 None	99	State payment being processed

Project Number	Applicant County	Eligible Project Cost	Grant		Payments To Date	Percent Completed	Project Status Comment
			<u>Amount</u>	<u>Percent</u>			
		<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>	<u>Federal State</u>		
<u>WHITE PLAINS REGION (continued)</u>							
88	Peekskill (C) Westchester	550,000 (185,811)	165,000 (55,743)	30 (30)	109,500 None	99	State pick-up contract sent to Applicant
67	Port Chester (V) Westchester	1,360,708 (77,000)	250,000 (32,000)	18.37 (41.63)	250,000 None	99	State pick-up contract being prepared
218	Westchester Co. Westchester	5,020,000 None; Completed prior to May 12, 1965	1,506,000	30	1,249,400	99	Completed; final FWPCA payment not made; FWPCA awaiting additional information from Applicant

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MR. HANDLEY: My comments generally follow this report.

I would like the record to show that we brought 200 copies of this down here. I understand that we are all out of them, despite the fact that there are 150 people in the room (laughter), so if anyone is hoarding them, please free them up now.

When we met in September of 1965, many elements of our Pure Waters Program were still proposals and not yet hard facts. In November of that year, the voters of the State issued a mandate to implement the program when they approved the \$1 billion construction bond issue.

With that mandate in 1965, New York's program accelerated -- got into high gear, if you will. Since that time, we have organized a Division of Pure Waters in the State Health Department. We have progressed with a strengthened enforcement program which started immediately to get many legislative improvements, and continued to make more.

Most recently, we have instituted a State Pure Waters Authority.

These are but a few things that have occurred since we first met in September of 1965.

All of this, however, serves to further establish the Federal-interstate -- the ISC -- and the State in a local

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partnership, which is so vital to the success of any water pollution control effort.

The objective of our presentation now is to briefly review this scarce report with you and hit the highlights, so that you will have some additional perspective as to what we have been up to in the past two years.

As Mr. Metzler mentioned, William Shaffer will discuss in greater detail the construction grant portion of our report.

Let me go on now with the report of our activities since 1965.

I mentioned that we have organized a Division of Pure Waters within the New York State Health Department. This Division consists of sanitary and construction engineers, scientists, administrators, engineering technicians, and supporting clerical staff. The central office staff, as of today, numbers 148 persons. In addition to this, we have increased the staffing of our White Plains regional office and of our New York City office.

We have accelerated our utility planning effort in New York State. First of all, all of our programs are coordinated with the Hudson River Valley Commission, which has a total planning responsibility. We have completed, under the auspices of the State Conservation Department, a

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multipurpose water resources survey for the entire State, including, of course, the lower Hudson River Basin. Also, we have currently eight public water supply studies completed or under way in this particular basin. This covers an area with a population of 9.3 million.

In addition, in our comprehensive sewage utility study program, we have 38 sewerage need studies completed or under way for areas with a population of three million.

The State investment since 1965 in these two programs totals \$3.2 million.

Our comprehensive utility study programs have always been directed towards a regional solution, a single plant to avoid three or four, a centralized facility which can be better operated and supervised.

We are especially fortunate to have with us today two gentlemen, one from Albany County and one from Rensselaer County, who will describe to you later the progress being made in these two counties towards regional solutions.

These represent the total New York State program, starting with the very logical area-wide comprehensive study, following through to complete planning, final planning, and going on to the construction grant phase, and finally the sewage treatment plant operation and maintenance grant phase.

While we are speaking of money and study, I think

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the conferees and you people here today should know that New York State has earmarked a fund of \$20,000 as an initial start to assist with the Spring Creek study in New York City.

I discussed this with representatives of the city some time ago. We anticipated a rather slow start, or an easy start would be a better word, and, therefore, we earmarked the fund of \$20,000 to assist in this study.

If the study jells and is finalized, we will make further plans for the second and third year of assistance.

Those of you who have the report might want to look on Page 15, which itemizes our progress for comprehensive water supply and sewerage studies. Look at Table 3 on Page 15. I draw your attention to the first example, Albany County.

Specifically, what we have here is a study of 13 individual municipalities and their needs for sewage collection and treatment. This will end up in a situation in which we will have two centralized treatment facilities rather than the 13 individual smaller facilities, which were typical prior to our study effort.

We are especially pleased with the progress being made, and we are in the middle of the second year of a three-year intensive study of water quality and assimilative capacity of the Hudson River.

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The study will provide the State with a flexible, computerized, analytical model of the response of the Hudson River to the discharge of any organic, thermal, toxic or other waste effluent. The computerized river representation developed will provide the State with a powerful tool for the rapid evaluation of alternative abatement programs.

To date, both steady State and time-dependent models for conservative and non-conservative pollutants and water quality characteristics have been constructed, programmed, and most important of all, debugged. This has been completed for BOD and DO determination.

In the area of water quality surveillance, we have an automatic water quality monitor which has been installed at Glenmont on the Hudson River. We have plans to install a second station this year in the vicinity of Bear Mountain.

In addition, we are collecting at five key locations on the Hudson manual samples, at varying frequencies of a week to a month, and maintain a record of water quality in these two ways on the Hudson River.

Since we met last, the State has issued 55 operating permits for new or enlarged facilities in the lower Hudson River drainage basin. These are treatment facilities to handle subdivisions in the cities, industries,

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and so on. These facilities serve 2.8 million people at a total construction cost of \$166 million.

This information, incidentally, is outlined in Table 4 on Page 19 of the report.

I think it is important to realize that once one gets just above -- not very far above -- New York City, that we do have some open spots in the landscape, and you will notice that rather than going into individual septic tank systems, we have approved and promoted several small centralized facilities.

Since the start of the program in construction grants, we have executed many construction grant contracts with municipalities in this particular basin for wastewater treatment facilities.

Applications approved and being processed total 28, with State grants estimated at \$186 million, as compared to the \$12 million of Federal grants.

This information will be elaborated on by Mr. Shaffer. The information appears at Table 1 on Page 4 of the report.

Again, I would direct your attention to Page 5, which indicates New York State's stake in the Albany County Sewer District and the Rensselaer County Sewer District. These will be commented on further by the local representatives.

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We are especially proud of the fact that we have tremendous local leadership. This is the key, you know, to getting any facility constructed. Without it, the Federal Government and the State government are lost, and we see this demonstrated here today.

Now, the State, without too much difficulty, prepared and submitted water quality standards to the Federal Government in accordance with the 1965 Water Pollution Control Act. I say "without too much difficulty" because we have been in business since 1949, and it was a matter more of assembling details rather than initiating action.

In the area of enforcement, we have completed 53 actions resulting in formal pollution abatement orders. This activity is summarized in Table 2 at Page 6. All major polluters in the lower Hudson River drainage basin are under order at this time.

Those of you who were here this morning saw the chart Governor Rockefeller displayed in his talk, and I must say that I was quite envious.

I have said that we have all the major polluters under formal order, and he very clearly showed that this represented, I think, 97 percent of the pollution to the Hudson River. I had never been able to figure out a chart like that before. It may account for why he is Governor and

A. Handley

I am a sanitary engineer, but it did show very clearly that we have 53 under order. This accounts for 97 percent of the pollution going into the river.

In addition, we have 43 more who are under a voluntary abatement program, and this accounts for about 3 percent of the pollution.

Finally, I would like to report on our sewage treatment plant maintenance and operation program. This is an incentive program by which municipalities which properly operate sewage treatment facilities are awarded a grant equal to one-third of their operation and maintenance costs.

If one operates their treatment facility in accordance with our minimum requirements, the year after they have finished this, they are eligible for the one-third grant.

We have had two years of experience in this particular program, and I would say it has been most successful. It has resulted in water quality improvement, because we have gotten improved operation of treatment facilities.

In the lower Hudson River Basin, exclusive of New York City, 46 municipalities qualified under this program in 1965 for grants totaling \$490,000.

To date, 36 applications have been approved totaling \$381,500 for this year. There are six New York City

A. Handley

plants in the area of this conference concern. These have been approved, and have received grants of approximately \$2.3 million each year.

This concludes the hasty review of our activities, other than those of construction grants.

Mr. Metzler and Chairman Stein, if you want to proceed?

MR. STEIN: Yes. Are there any questions or comments?

(No response.)

MR. STEIN: This is again a very excellent and comprehensive report.

As you know, Dwight Metzler has been with me from time to time throughout the country. Sometimes when we come into programs, we perhaps feel critical or maybe the people feel critical, and I think the record shows it. But I think in a situation like this, it looks to me that we have a State-Federal-local interstate program, where we are all pretty much moving together, and if there are any problems, they are problems on the specifics which can be adjusted.

I am very encouraged by the reports we have heard so far, and I think this is moving along famously.

MR. METZLER: I would like Mr. Shaffer then to add some dimensions to the remarks that have already been

W. K. Shaffer

made about financing. It is not that I think we probably need to be convinced that the Federal participation or financing is a problem, but it is rather that I would like to demonstrate the extent to which we have analyzed this problem, and his presentation will show the kind of imposition that will be placed upon New York's taxpayers for pre-financing and the more difficult roles that we will have in pushing communities forward on schedule, unless some major change is made in the attitude of the Congress toward financing the program that they have authorized.

Bill Shaffer.

STATEMENT OF WILLIAM K. SHAFFER, CHIEF,
CONSTRUCTION GRANTS ACTIVITIES, DIVISION
OF PURE WATERS, STATE OF NEW YORK DEPART-
MENT OF HEALTH, ALBANY, NEW YORK

MR. SHAFFER: Mr. Chairman, Ladies and Gentlemen:

My presentation is included in detail in the pamphlet which has been presented. My purpose here is to emphasize or explain certain items, which we feel should be covered a little bit more than have been covered thus far.

The State of New York Pure Waters Construction Grants Program is a practical, workable, financially sound

W. K. Shaffer

incentive program which is producing results faster than we expected in the beginning. It has materially influenced the initiation of the projects, and it is continuing to do so at a rapid rate.

It was on September 1, 1966, that we signed our first five State contracts. The Governor had municipal officials in, and we signed those roughly a year and a few days ago.

Since that time, we have formally executed some 47 contracts, and we have another 129 which are due to be executed when construction starts.

As you may or may not realize, we don't execute a formal contract until construction starts, but this does mean that the State has made a commitment as regards the furnishing of the grant. So that we at the present time then are to the state of committing \$357 million in State grants.

Projects in New York State for construction of municipal sewage treatment works are eligible for Federal Water Pollution Control Administration construction grants under the Federal Clean Waters Restoration Act of 1966, and under previous legislation, depending on when the project started.

At the present time, New York State water quality standards have been approved by the Federal Water Pollution

W. K. Shaffer

Control Administration, and we are then eligible in New York State for either 50 or 55 percent Federal participation.

One of the questions that then arises, as the Governor mentioned this morning, is the question of how much money is involved in this Federal program, and how much are we eligible for under the 55 percent figure.

We have assembled the statistics on that and we have prepared them, and in Table 6 of our presentation we show you that we have roughly \$238 million due the State of New York on projects at the 55 percent figure, for projects which are already approved or are in the Federal Water Pollution Control Administration awaiting approval. That is \$238 million.

Table 7 indicates that we will need \$140 million for projects currently being proposed by the municipalities and the New York State Department of Health. These projects are projects which are so firm and the estimates are so firm that project identification numbers utilized by the Federal Water Pollution Control Administration and the State Department of Health have already been assigned to these projects.

Next, in Table 8, we show the projects one by one which total approximately \$316 million, new projects across the State of New York, at the 55 percent figure for projects which are in process of preparation at the municipality level.

W. K. Shaffer

Now, the preparation has gone so far that we have an actual figure which represents a firm estimate at this time.

So what these three tables boil down to is that the total amount is roughly \$694 million that projects across the State of New York would be due if the Congress decides to fund these projects at the authorized 55 percent figure.

Another subject is the water pollution control program of the City of New York. Commissioner Hult mentioned that they had an enormous program which has been going on since 1931. That program totals \$1.29 billion.

We have shown in Table 9 the various participation by the Federal Government, by the State government and by the city.

The city is to be commended for the outstanding rate of progress that they have made in that program in the past few years in advance of any substantial grants from either the State or the Federal Government.

They are to be commended also, of course, for the excellence of their technical supervision and the dedication of the many people who have been in this program for many years. It certainly has made it much easier for the State and Federal Government to work with them, because of these people.

W. K. Shaffer

Next, we talked a little bit about the requirements there. We will talk a little further about them in terms of the Federal Clean Waters Restoration Act of 1966, which authorizes a total of \$3.5 billion through the year 1971.

In the State program, as the Governor indicated, it was estimated when our legislation was passed two years ago at \$1.7 billion. In a quick comparison, it is one-half of the Federal authorization.

The problem that concerns New York State this fiscal year is that it appears that the Congress is going to pass an appropriation of \$203 million instead of the authorized \$450 million. The State's share for New York State projects of that \$203 million is only \$14.5 million.

As you can see from the listing of those projects, this is a very small amount of money.

At the present time, it appears that there will be one percent participation by the Federal Government in the State of New York projects for the balance of this fiscal year. Since the first of April, participation in New York State projects has been 4 percent. As you know, this State guarantees State and Federal participation up to the 60 percent, our basic State grant of 30 percent, then 1 percent Federal participation, which makes the State's pre-financing

W. K. Shaffer

29 percent, and it appears that that will be the figure that we will have to use for the balance of the current fiscal year.

We have found in New York State it extremely desirable to furnish, on a monthly basis, a status report to our municipalities and to our consulting engineers. We take the approach that they are entitled to know the action or lack of action by the State and by the Federal Government in the processing procedure in regard to projects.

In other Federal programs, you all are aware that there are various processing problems. We solved that problem here by publication of this monthly status report, and we have included in our presentation in the pamphlet the August 31st monthly status report to indicate to you how we furnish that information to the municipalities and to the consulting engineers.

The State and its municipalities are much interested in the reimbursement features of the Federal Water Pollution Control Administration grant program. This is where we are going to get the 55 percent back eventually if the Congress appropriates the money.

The municipalities realize that the State of New York accepts each pure water program project as it arises, treating each with equal priority and recommending equivalent Federal

W. K. Shaffer

participation when the project is approved by the Federal Water Pollution Control Administration.

Currently, this program is a 1 percent Federal Water Pollution Control Administration participation and 59 percent State participation, composed of the 30 percent basic State grant and 29 percent prefinancing of the Federal share. This leaves some 54 percent of the Federal share to be furnished later by the Federal Government, either before the completion of construction of the project, or as reimbursement after the completion of construction.

It is apparent that the lack of Federal funds precludes financing to the full 55 percent. The situation will not get better soon, and it does cause problems administratively with the municipalities, the State and the Federal Water Pollution Control Administration.

In our construction grants activities, we have had a very excellent relationship with the construction grants personnel of the regional office.

We would like to commend Mr. Lester Sutton and Mr. Ricci for the efficiency of their organization, and for their personal effectiveness. They have also received excellent support from Mr. Thomas Ferry of Construction Grants in Washington.

Without this excellent relationship, the State of

W. K. Shaffer

New York construction grants program would not have been able to progress as far and as fast as it has thus far.

We would also like to give recognition to the Corps of Engineers, another Federal agency, for their pollution control abatement activities, particularly their enforcement and operations activities in the harbor and on the Hudson.

The State Pure Waters Construction Grant Program is fully implemented at the present time, it is adequately funded, and, as I said, it is progressing in excess of expectations.

Further assistance in the form of material increases in the availability of Federal funds would undoubtedly provide further impetus to municipalities across the State of New York to this greater progress.

Thank you.

MR. STEIN: Thank you, Mr. Shaffer.

Are there any comments or questions?

MR. KLASHMAN: Mr. Shaffer, thank you very much first for the very kind words you had to say for our staff, Mr. Sutton, Mr. Ricci and our Washington colleague, Mr. Ferry.

I noticed that in the figures you gave on the needs that you were talking about the entire State program, but what we are talking about here today is the Hudson River.

W. K. Shaffer

Do you have any figures broken down, or can't you give us figures for the record for the Hudson River? You have done it by regions.

MR. SHAFFER: If you will turn to Table 1, you will find that those are the construction grants projects which are either already approved by the Federal Water Pollution Control Administration, or are in the hands of the Federal Water Pollution Control Administration awaiting approval at this time for the Hudson River, of course, from Albany or Troy south, and excluding the lower harbor. In other words, those are the construction grants projects for the conference area.

The reason that we presented the other figures to you later is, as Commissioner Hult can't separate his overall city program into the lower harbor and the Hudson River area, we can't really separate our financing problems into just the Hudson River without considering the rest of the State, so we have given it to you both ways.

MR. KLASHMAN: This table gives the projects that you have. Does it give all of them? In other words, when you have accomplished all these projects, you will have accomplished the entire Hudson River area?

MR. HANDLEY: That is the table to date. There will be additional projects in the lower Hudson River.

W. K. Shaffer

MR. KLASHMAN: Right. Thank you very much.

MR. SHAFFER: You can say that another way for the construction grants people. Those are the projects on which identification numbers have been assigned. They include all projects which are either approved or are in the hands of the Federal Water Pollution Control Administration for approval, except for the Albany County project and the Rensselaer County project. Those are the only two on that list which are not in your hands which have been approved by you.

MR. STEIN: Are there any further comments or questions?

(No response.)

MR. STEIN: That is a very excellent report

I would just like to say one thing for the record. I think your points are well taken. I have always wondered why more States didn't get the cities and the money outlined the way you have done here. This is what I have always said was a prerequisite to point up the problem. The fact that you have done this shows that you mean business, that you are far ahead, and it gives everyone in every portion of the country, in the Congress and everywhere else, a notion of the magnitude of the problem and what you intend to do with the money.

W. K. Shaffer

This program has advanced through the years. We have to look at everything in the historical light. I know you have had the bond issue in the State of New York. Originally we started with \$60 million. The maximum grant was \$250,000. This was for the small cities.

We finally got that raised to \$100 million a year, and we got the grant raised to \$600,000.

This was the genesis of the program. We have to recognize this.

Now, maybe the reimbursement feature gives us another angle to go at this, but I don't think the Congress intended that.

Again, when you look at the program, one of the overriding considerations, whether you talk about 50 percent grants, 55 percent grants, or 30 percent grants, is the dollar limitation that Congress puts on and your allocation.

For example, what did you say you were getting under the \$200 million, \$17 million?

MR. METZLER: \$14 million dollars.

MR. STEIN: Let's suppose we got the full amount. If it doubled, what would that be, 1 percent, or 2 percent?

Let me make the point again. Go to your Table 1. I am not arguing with the table, because I think the table points up the issue.

W. K. Shaffer

The table shows the North River plant, and it gives the eligible project costs as \$220 million. That is one project in New York City which is more than the total national appropriation or the likelihood of the national appropriation for 50 States, the District of Columbia, Puerto Rico and the Virgin Islands, that are eligible too.

In other words, realistically we must recognize that to have clean waters in the United States we are going to have to get along with the authorized money that the Congress is talking about. If we are going to have this in the fairly near future, places such as New York City are going to have to figure on getting these funds somewhere else. I don't think there is any argument about that.

Now, perhaps, we may work out this reimbursement feature. I think New York has taken on that program realistically, but I don't think we should delude ourselves about the magnitude of the Federal grants authorized.

I just want to make one more point. We do have Federal funds authorized. For example, as you said, this year \$450 million was authorized. It looks like less than half of it, or \$203 million, is going to go through.

We always like to talk about money being authorized, but if you would just stop and think that if your Federal budget this year equaled the amount of projects authorized

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by the Congress, what that would mean to your tax program.

Again, I am saying that we should not hope for that in our program, but is it really realistic to believe when we have that authorization that we have more than that?

There are a lot of national obligations in competing for the Federal dollar. You also have your obligations here to have clean water.

What I am saying to you is, let us recognize the limitations. We recognize we have a difficult program to go through. You have talked with Mr. Ferry and his group. They are trying to do all they can under the limitations of the program.

I think the sooner we look at the realistic operations of the programs of New York and New Jersey and realistically are appreciative about this, the better off we are.

Dr. Kandle spoke about the propaganda mill. If you want to say that the Federal Government has "an obligation" and is not coming through with the obligation, that is all right. Legally, the obligation we have is just the money that Congress appropriates, and you know how much they are appropriating.

These are the facts we have to keep in mind if we are dealing realistically with the program that we are going to have to face for the next five years in the dealings we

W. K. Shaffer

are going to have with each other.

We are always open to charges and jibes and such as that.

Thank you.

MR. METZLER: Murray, I think in view of this, I am going to have to make a little historical remark here.

You recall that in the spring of 1965, Governor Rockefeller went down and challenged the Congress to put up 30 percent of the construction grants, because he recognized what many of the others, including yourself, had, that the construction grants program up to that point was merely aimed at the small community, that it wasn't really aimed at the metropolitan centers, that it wasn't of much help and certainly a little help to communities the size of New York City or some of the other metropolitan areas.

Congress accepted that challenge. It waited a year. Instead of accepting it in 1965, you will recall that there was some proposed legislation going in 1965, the challenge was accepted in 1966, but in addition to accepting the challenge they added another 25 percent on, and the representatives of the Federal Government in both the legislative and the executive branches have been talking about this, so that every public official in New York knows about it.

W. K. Shaffer

It seems to me that we either ought to take some of the authorizing legislation off the books, or else we want to make darned clear that we have got some sound engineering facts, that we have got costs that are based upon actual engineering estimates, and not something that was done by a survey, and that if Congress really means what it is talking about, about helping the cities, it is going to have to put up some real money.

Now, I am sympathetic with the problems of the President and the Congress in trying to finance a major war and finance the domestic programs. I have also watched appropriations, and I have noticed that all of the domestic programs have been cut, except a few in the Department of Health, Education, and Welfare, but, nevertheless, we have got to quit talking about having this kind of help available at the Federal level unless -- and this is a crude expression -- you put your money where your mouth is.

MR. STEIN: Dwight, I think you are right. You recognize that in most States, the Federal Government is putting up more money than the States.

You are talking about one or two States where the situation obtains, but it looks a little different when you get to New York State.

I just have one footnote when you say either put

W. K. Shaffer

up the money or take the legislation off the books. Mr. Metzler, if any grant authorizing legislation is ever taken off the books, you would be reversing a trend in modern history.

MR. METZLER: There are two additional witnesses that we would like to call for New York State before you may want to take a break.

MR. STEIN: All right.

MR. METZLER: Is Senator Whitney North Seymour here?

(No response.)

MR. METZLER: We will wait for his return.

Is Mr. Alan Blake here, representing Assemblyman James Fusco?

(No response.)

MR. METZLER: All right.

MR. STEIN: All right. Why don't we hear from the Interstate Commission?

MR. LANG: Mr. Stein, may I make a comment, sir?

MR. STEIN: Why don't you see me during the recess?

MR. LANG: All right.

MR. GLENN: Mr. Stein, I would like to call on our Chairman of the Interstate Sanitation Commission, Dr. Colosi.

N. Colosi

STATEMENT OF DR. NATALE COLOSI, CHAIRMAN,
INTERSTATE SANITATION COMMISSION, PROFESSOR
OF BACTERIOLOGY AND PUBLIC HEALTH AT WAGNER
COLLEGE, DEAN OF POLYCLINIC MEDICAL SCHOOL

DR. COLOSI: Mr. Chairman, Distinguished Con-
ferees, Ladies and Gentlemen:

My name is Natale Colosi. I am Professor of
Bacteriology and Public Health at Wagner College, and the
Dean of the New York Polyclinic Medical School. I speak here
today in my capacity as Chairman of the Interstate Sanitation
Commission.

The present session of the conference has been
called to review progress made in implementing the agreements
reached at the first session which was held two years ago.
Partly because of the nature of such an undertaking, and
partly because new Federal statutes have made the processes
for revising standards in interstate waters different than
they were in 1965, it seems inappropriate to do more in the
present context than summarize the actual events of the past
two years in securing better facilities for water pollution
control in the Hudson River area. We believe that progress
has been good.

N. Colosi

At the conference on the Hudson River held on September 28, 1965, the conferees agreed that all wastes discharged to the Hudson River should receive a minimum of secondary treatment. We reported at the conference that all of the sanitary wastes originating in the New Jersey portion of the conference area were receiving primary treatment at one of nine sewage treatment plants with the exception of approximately 30 million gallons a day. This waste was discharged through Peddie Ditch into Newark Bay but was intercepted during 1966 and diverted to the Passaic Valley Sewage Treatment Plant for treatment. The primary plants received orders from the New Jersey State Health Department in August 1966 requiring an upgrading of treatment and then in March and April 1967 they received amended orders requiring a removal of not less than 80 percent of the biochemical oxygen demand and included a detailed timetable. The date for completion of construction is October 10, 1970.

At the time of the previous conference, we stated that practically all sanitary wastes from the Rockland and Westchester County area were receiving at least primary treatment and chlorination during the recreational season. Also, we reported that the State of New York and the Commission had agreed that secondary treatment was needed and steps were being taken to accomplish this. Since then, the Village

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of Piermont has completed the pumping station and force main which diverts its flow to the Orangetown Treatment Plant. This latter plant is under construction for the addition of secondary treatment facilities. The New York State Health Department has also issued orders on the remaining primary treatment plants and the completion of construction is scheduled from 1968 through 1970, depending on each individual situation.

In the New York City portion of the conference area the Commission has had a Consent Order against the City of New York since 1957 and all of the projects are either completed, under construction, or under design.

The largest project under the Consent Order is the Newtown Creek Pollution Control Project, which will provide secondary treatment for approximately 300 million gallons a day of raw waste and will improve considerably the water quality of the Upper New York Harbor area and the waters passing through the Narrows and also water carried by tides up the Hudson River. This project is scheduled to be completed this month at a total cost of 165 million dollars. We had planned to have chlorination of all sewage discharges in the Upper Harbor, Kill Van Kull, Lower East River and Hudson River by this summer. The summer or bathing season of 1967 was selected as the starting time of chlorination

N. Colosi

in this area as it was to have been the first bathing season following the scheduled completion of the large Newtown Creek Sewage Treatment Plant. Although this plant was not completed as scheduled, some of the existing treatment plants started chlorinating. Others have chlorination facilities under construction and will be chlorinating prior to the bathing season of 1968.

The interceptors for the North River Pollution Control Plant are now under construction. This plant is designed to treat 220 MGD, will be located between West 140th Street and West 148th Street, and most of the plant will be built on reinforced concrete platforms supported on long piles and caissons in the Hudson River. The North River Project is scheduled for completion by 1972. Construction will begin this year on interceptors to the Port Richmond Plant and design is under way for full secondary treatment with a design capacity from 10 to 60 million gallons a day. This construction should be completed in 1971. Design continues on the Red Hook Pollution Control Project, which will provide treatment for the remaining raw wastes from Brooklyn. This plant is scheduled for completion in 1972.

The combined sewers are always a real problem and a majority of the metropolitan area unfortunately has this type of sewer. Due to the heavy rainfall this summer, this

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problem caused a very high coliform count in the New York City beach areas and lower dissolved oxygen values in many areas.

In judging the likelihood of continued satisfactory progress in bringing the waters of the conference area under control, it is appropriate to note what the first session of the conference found:

"5. The States of New Jersey and New York and the Interstate Sanitation Commission are empowered to abate pollution and have active programs to accomplish this result. These programs include: establishment of water quality requirements; enforcement actions to abate waste discharges; development of comprehensive water pollution control programs: and fiscal incentives."

This conclusion of the conference in 1965 is just as apt today as it was then. At the time, the conferees also found that the problems of the Hudson River are large and complex. owing to the heavily populated and industrialized character of the region. It may be understood, then, that a great deal of continuous effort on the part of all concerned is necessary for successful pollution control.

This proposition could be illustrated in many ways As previously mentioned, the Interstate Sanitation Commission

N. Colosi

has a consent order against New York City under which that municipality's vast program of treatment plant and related construction is being carried out. The order dates from 1957, but the achievement of totally satisfactory results was recognized to involve a multistage construction program. New York City activities reported for the two-year period, since the first session of this conference, have constituted the most recent phases of work toward full compliance with the Interstate Sanitation Commission's consent order.

We believe the opportunity for the abatement of water pollution was never more favorable than at the present time. The people of the area have never before shown such solidarity in expressing their desire for cleaner waters for best usage. This has been shown in many ways such as the New York Bond Issue in 1965 and the new legislation passed in New Jersey and Connecticut during the early part of this year which provides State matching funds so that projects will be eligible for the maximum Federal matching funds. This has lead to communities under orders to construct secondary treatment facilities to make financial plans based on receiving from 60 percent up to 85 percent of total construction cost from State and Federal sources. Our real concern is that we now have the sentiment of the public to get the job done and the lack of Federal funds at this time will

N. Colosi

provide such an obstacle that the construction of abatement projects may be brought to a standstill. For instance, some of the larger projects are being pre-financed by New York State to the extent of 26 percent or more of the Federal share of 30 percent. This does not include another 25 percent of promised Federal matching funds as "bonuses" which the communities were expecting and which they may now only hope to receive at some time in the future. New York may reclaim some of their pre-financing funds if Federal money is ever appropriated for this purpose at a later date. It might prove quite difficult to achieve the current level of public support again if Federal funds are not made available for the projects to proceed as now scheduled.

We look forward to a steady improvement of waste treatment in that portion of the Hudson River Basin lying within the Interstate Sanitation District. To this end we count on the continuing cooperation of the States of New Jersey and New York, the Federal Government and the Interstate Sanitation Commission.

Thank you.

MR. STEIN: Thank you, Professor Colosi.

Are there any comments or questions?

(No response.)

DR. COLOSI: This is like in some of my classes,

N. Colosi

no questions asked.

MR. STEIN: You know, the Commission always puts out a very clear statement.

As I was telling Mr. Klashman up here while this was going on, we always get from the Commission some of the best technical writing. Sometimes I wonder why we can't have writers like this ourselves.

I would just like to call attention to one phrase which I pick out, and this is at the top of Page 6. You say, "This does not include another 25 percent of promised" -- and I emphasize that word, "promised" -- "Federal matching funds as bonuses."

As long as we keep using "authorized" and "promised" as citizens, we may run into trouble.

Thank you.

Mr. Metzler?

MR. METZLER: A few minutes ago we called for Senator Seymour. He has since arrived.

I will now call on Senator Whitney North Seymour, who is State Senator from the 26th District of New York.

STATEMENT OF STATE SENATOR WHITNEY NORTH

SEYMOUR, JR., 26TH DISTRICT, STATE OF NEW YORK

W. N. Seymour

MR. SEYMOUR: Mr. Chairman, although I was delayed getting back this afternoon, I was here this morning when I heard you speak of the burden we all carry with the vagaries of our legislatures, and I sort of had my ears turned around, and will say I am not in agreement with you completely.

I have been in our State Legislature for all of two years, and that service has generally persuaded me to accept Will Rogers' statement, when he said, "It is better to have termites in your house than have the legislature in session." (Laughter)

You will be pleased to know that the New York State Legislature is not in session. We are in recess, and we do not convene again until January, so you are relatively safe, but I do want to prove the value of your thesis about vagaries by going off on a little bit of a tangent from the main subject matter of your conference, because I think it is important to keep your eye on the overall objective to which we are all working.

I really think the achievements so far in water pollution control are terribly exciting. I think it is time for us to start looking around as to why we are doing it, and where we are going with it.

New York, with approximately 578 miles of water-front, has probably the most extensive and varied shoreline

W. N. Seymour

of any city in the world. The marshes, rocky highlands, sandy shores and the great port itself offer a scenic and recreational potential that is unmatched anywhere. It is tragic that we have failed to realize the tremendous opportunity of this waterfront to serve the citizens of the metropolitan region. The same can be said of large stretches of the Hudson River that should be a major recreation resource for the entire region.

Those concerned with the region's development are heartened by the progress in eliminating water pollution, but this is only a small portion of the real job that needs to be done. Coordination between all levels of government is necessary to take full advantage of the river and what it has to offer.

I would like to suggest that the time has come for major governmental planning on the proper and effective use of this waterfront, including the development of recreational areas and access thereto, controls of other land uses, and elimination of visual pollution. In terms of recreational planning, we should be anticipating the growth of the region to the year 2000. The Regional Plan Association has found that while demand for recreational space is soaring, its availability is rapidly diminishing; in the New York metropolitan area, as much raw land was covered with homes,

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factories, roadways and other urban structures in the 30 years prior to 1960 as was turned to urban purposes in the previous 300 years, and present development trends would result in a doubling in the region's urbanized land area by 1985. Whole sections of the river such as the Hudson Highlands should be preserved now for future recreation needs, and nearer to the city, new parks and other facilities including marinas, recreational piers, restaurants, floating swimming pools and many other exciting concepts suggested by responsible civic groups should be developed. The Regional Plan Association and the Park Association of New York have contributed a number of excellent ideas.

A perfect example of the type of recreational needs which can be served by the waterfront are bicycle paths. The Central Park experiment shows the tremendous, unexpected demand for this wholesome activity -- so much so that we have bicycle jams in the Park when it is open to cyclists. There is no better opportunity to expand this interest than a waterfront bicycle path, and several stretches of the river are natural locations.

The clearest evidence of the need for coordinated planning is the lack of access to existing recreational areas. Any day on the West Side Highway you can see people darting through the traffic to reach the water's edge. The

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announcement made several months ago about the proposed Hudson River Parkway indicated that some kind of a Chinese wall is to be constructed north of Peekskill, thereby depriving people even further of access to the river. Someone must not only protect access, but also develop modes of transportation to get people to the waterfront.

As the Regional Plan Association has effectively pointed out, the need for land use controls has never been more evident. Indiscriminate construction of high rise apartments on the New Jersey side of the river is already destroying that beautiful vista. It has been long since apparent that the nineteenth century dock system in Manhattan is obsolete for modern shipping purposes. Some docks should be destroyed to open the waterfront for enjoyment by the city's residents, others converted to recreational uses, and others replaced by modern passenger terminals. The experience of visitors coming to New York by ship is an unjustified ordeal. Cargo shipping operations obviously require much more modern equipment and a location such as Staten Island with a minimum of traffic problems.

Pending proposals for high rise structures along the Manhattan waterfront preview the time when the inner city may be walled off from the river. It is clear that we need controls over the height and design of buildings along

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the New York and New Jersey shores before we have completely lost all light, air, and vistas.

In addition to attacking water pollution, we must strike at visual pollution. Rotting piers, neon signs, billboards and other affronts to the eye prohibit any enjoyment of the magnificent natural resources.

Finally, our paramount objective must be coordinated planning of water resources. One evident fact is that the States have taken a back seat in dealing with such regional problems, and it is time they resolved their differences and worked together. In New York, the Office of Planning Coordination is only a faltering step in this direction. We must establish machinery to insure that no future capital project be instituted without proper consideration of related land use, conservation, transportation and further development of the areas affected, and that such a project does not conflict with the comprehensive development plans of the particular region. One aspect of planning must include the services of a naturalist or ecologist with full professional understanding of the balance of nature with which we are tampering.

I might say in an aside that I am very pleased that our Hudson River Valley Commission has now on the staff a full-time ecologist.

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If we could only figure out a way to do some real coordination between the levels of government, we would really make some progress.

Metropolitan centers have been growing at such a fast rate that many formerly local planning functions can no longer cope with present needs. Economic development, housing, recreation planning, transportation and pollution control along the waterfront have impact far beyond the geographical limits of counties, cities and towns. The State government must assume a growing responsibility to provide planning coordination in these areas in order to fill the significant vacuum in the lower Hudson River Valley.

Thank you.

MR. STEIN: Thank you, Senator.

I would like to assure you that Secretary Udall is very, very much interested in this, and, as a matter of fact, he particularly is interested in the Hudson Valley.

I am sure he will be most interested to get your feelings and views on this matter, because this is the kind of proposal that I am pretty sure he likes to take on a total planning and regional basis.

MR. SEYMOUR: I am fully aware of the Secretary's past observations on the subject, Mr. Stein.

One of the problems obviously is that somehow we

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have come up against a loggerhead here, where the Federal Government and the two States are really not riding along on the same rail, and that is what I hope we can get accomplished very soon.

MR. STEIN: I am sure we all hope that. Thank you.

Are there any further comments or questions?

MR. METZLER: Before the Senator sits down, I particularly want to pay tribute to you and your colleagues in both the Senate and the Assembly for having provided your communities in New York and the New York State Health Department with the kind of tools that are required for this massive effort in this clean-up, and which has attracted attention throughout the country and around the world.

I just want you to know that as one of the workers, I appreciate this very much.

MR. SEYMOUR: It is only fair to observe that if the program weren't carried out with such competence, it would have been a waste of effort.

DR. KANDLE: Senator, with that remark about we are riding on the rails, did that have any particular significance?

SENATOR SEYMOUR: No, no. (Laughter)

MR. STEIN: We will stand recessed for ten minutes.

A. L. Blake

(Whereupon a recess was had.)

MR. STEIN: May we reconvene?

Mr. Metzler?

MR. METZLER: Before proceeding with the remaining witness list for New York State, I would like to say if there were some who did not get the copy of the progress report and do want it, if you will just write on your own stationery to Pure Waters, New York State Health Department, Albany, we will see that a copy is sent to you. The address is Pure Waters, New York State Health Department, Albany. I imagine if you left out the "New York State Health Department," even then it might get to the right place.

Next is Mr. Alan Blake, who is now here, representing Assemblyman James Fusco.

Mr. Blake.

STATEMENT OF ALAN L. BLAKE, LEGISLATIVE
REPRESENTATIVE TO ASSEMBLYMAN JOSEPH A.
FUSCO, 86TH ASSEMBLY DISTRICT, BRONX
COUNTY, NEW YORK

MR. BLAKE: I have been asked by Assemblyman Fusco to read his statement.

Gentlemen:

A. L. Blake

As a member of the Republican Assembly Subcommittee on Pollution, I wish to take this opportunity to thank you for affording me the time to make a brief statement.

Over a period of years, we have allowed air and water pollution to become a part of our everyday life. It is now evident that the health hazards are created because of inadequacies in enforcing legislative action. City, State and Federal agencies continue to play Russian roulette with citizens' lives. Until uniform laws are enacted, our efforts will be for naught. There is an immediacy of need for review of existing problems, and an immediacy of need for a plan of action. I trust that the conference will bring forth a uniform program that will be accepted by all city, State and Federal agencies.

Thank you.

To Assemblyman Fusco's statement I would like to add a few comments concerning areas of pollution which affect those of us who live along the waterfront of the northeast Bronx. We share the concern of all New Yorkers with the pollution of the air we breathe, but we are equally concerned with the unnecessary pollution of our recreational waters by our own city. Those city officials who should be most concerned with protection of our citizens are frequently those most guilty of callous disregard for our health. and they

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are the most difficult to control because of the relative immunity vested in their positions.

At the present time, the City of New York is pushing ahead with plans to dump raw garbage into, and adjacent to, the wetlands and navigable waters of Pelham Bay Park. Perhaps such a method of garbage disposal will reduce air pollution caused by incineration, but of what value is this when a new area of water pollution is introduced by the alternate method of disposal. Surely pollution control programs must be developed in such a way that the end product is of genuine benefit to all the communities involved. And most certainly, the public agencies themselves must accept equal responsibility with private enterprises to control their activities in such a way that contamination of our surroundings is held to an absolute minimum.

I thank you.

MR. STEIN: Thank you, Mr. Blake. Are there any comments or questions?

(No response.)

MR. STEIN: If not, Mr. Metzler?

MR. METZLER: I have nothing other than to say that it is a very constructive, helpful statement, and we hope you will convey to Assemblyman Fusco our appreciation for his interest and the kind of support he has given to this

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program in the New York State Legislature.

The next witness, Mr. Chairman, is C. C. Johnson, who was recently appointed Assistant Commissioner of Environmental Health Services of the New York City Health Department.

Mr. Johnson.

MR. STEIN: I don't hear any complaints with C. C. Johnson coming up here, about whom you stole from us.

(Laughter)

STATEMENT OF C. C. JOHNSON, ASSISTANT
COMMISSIONER, ENVIRONMENTAL HEALTH
SERVICES, NEW YORK CITY HEALTH DEPART-
MENT, NEW YORK, NEW YORK

MR. JOHNSON: Mr. Stein, to be formal about this, and Members of the Committee:

I do not have a prepared statement, primarily because at the time I heard about the conference, which was perhaps yesterday, it did not give me time, with all my other duties, to be able to come here with the kind of prepared statement I would like to give you.

I do understand, however, this is not the fault of anybody at the table. It is one of those things that happen in communication channels, and I guess the paper just

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did not get down to me.

I think it is very important, however, for a city the size of New York, which represents somewhere pretty close to 50 percent of the population of the State, since we do have a large share in the tax base and we do have a very active and live and, I hope, viable Health Department. I am sure that the State would be the last to say that people in the preventive public health field don't have a real interest and a concern in water pollution control, and I want to make sure that the record of this conference shows that New York City does have this concern.

We do have a very real program, both in cooperating with the State and cooperating with the other departments in New York City in attempting to achieve the same objectives and aims that this conference is trying to carry out.

More than that, if, under any conditions, an organization that has this kind of concern loses its visibility in that area in which these concerns are expressed, they soon lose their identity and their capability to do a program. I think this is very important for the conferees and the people who are participating here to understand.

More than that, we also have a legal responsibility in the City of New York that has some power to express itself through the regulations and standards and restraints.

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and this legal responsibility in terms of water pollution control rests with the New York City Health Department.

We do carry out this responsibility, as I said, in cooperation with the State, recognizing and never forgetting that the State is a higher authority, and much of what we carry out is within the aegis that they give us.

Having this joint responsibility, we also have some activities that we carry out, and these activities, in no small measure, contribute to the status report that this conference is attempting to develop, and, at the same time, give some major progress that obtains in New York City as a result of these activities.

We have heard some very glowing reports in terms of the progress that has been made by the State of New York, and certainly our Department of Public Works in the City of New York, and no one can argue with these statements. On the other hand, it might be questioned whether they cover the entire field of water pollution control that we certainly at the State level and in the Health Department of the city are concerned with.

For instance, a primary concern at the moment is to build sewage treatment plants to contain and to treat the city's sewage. This of itself does not speak about the industrial waste problem in the City of New York. This is

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finished sewerage, and right now, except as the State and the city Health Departments mandate, industrial concerns are not necessarily compelled by the Department of Public Works to tie into the city sewerage system.

On the other hand, it is the policy of the City of New York to tie all of these people into the city's sewerage system so that we can reduce the number of outlets that empty into our waterways around the city.

We think that there is very good reason for this, and we are cooperating with the Department of Public Works and with the State to carry out the enforcement powers that prevail, so that we can compel these industrial waste polluters to tie into our city sewer systems.

We were doing this before the actual legal enforcement powers prevailed, and up to this time we have been successful in getting some of the industrial polluters, with their own moneys, to carry out the construction of sewers that were necessary to make the tie-ins that are required under our policy.

We continue to work with these industrial polluters, and we have quite a number of them in New York City, many of them small, but I can say as large as some of the largest ones in some of the communities outside of New York State, to

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tie into our community sewerage system.

So, with this kind of a policy, we are not in a position to carry out the legal requirements and mandatory court actions that you might take if you did not have to tie into the city's sewerage system.

Why is that so? We can't tie into systems that don't exist, so we have to cooperate and stimulate the further acceleration of the construction of our city systems.

I think Commissioner Hult would be the first to say that we have had some influence in this regard. I give, as an example, the problems that we have on Staten Island. Many of these problems are health problems. Water pollution is not just an economic problem. It does have health implications, and because we point out these health problems, we are able to change some of the priorities that prevail in the construction of sewers that we need throughout New York City.

I might say, when we talk about the kind of progress that is being made, many people forget over the years that it is sometimes a stimulation from an outside source that causes this progress to become a reality, and I give as an example, not because I am Assistant Commissioner for Environmental Health, but these things came about before I came to the Department last March, Broad Channel, which is a situation that existed for some 20 or 30 years, I understand.

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People in New York City knew that this was out there, and it was not until the Health Department brought to the public the kind of nuisance and potential hazards that existed there, that we got some real activity in trying to get the kind of correction that we need to have to bring in the kind of sewage treatment facilities and practices to eliminate the conditions in Broad Channel.

They talk about Jamaica Bay. I understand that some seven or ten years ago, the Health Department was pushing and perhaps laid some of the basic groundwork for the studies that will be conducted in the terms of pollution in Jamaica Bay.

If we talk about combined sewers in New York City, our own Harold Romer, now with the Department of Air Pollution, was one of the pioneers that brought to the fore the kind of problems that combined sewers cause in terms of pollution of our waters.

So let's don't, under any circumstances, ignore or forget that the local people, as well as the State and the Federal people, are also in this fight to clean up our waters, and we do have something to contribute, and we only want to become part of the team so that we can also be cited for the successes that you are talking about here.

Thank you.

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MR. STEIN: Thank you, Mr. Johnson.

Are there any comments or questions?

Charlie, do you want to wait a second, if you will?

MR. JOHNSON: Sure.

MR. STEIN: I have a question about the extent of the industrial problem. This is a new facet. I had assumed that within the city, these plants we were talking about were going to pick up industrial as well as municipal waste.

MR. JOHNSON: What you assume is correct, and it is because this is a policy that we have accepted and decided upon amongst our inner departmental sewerage council here in the city.

Now, as I understand it, we have various kinds of industrial polluters. Many of these are located outside of the regions of our existing sewerage system. Some of them are within the regions, and they are being compelled at this time to tie into our sewerage systems. In those instances in which this is completely economically unfeasible, we will look for alternative ways to combat this source of pollution.

Now, just to put it in its proper perspective, this is a very small percentage of the total pollutional load that was developed by New York City.

On the other hand, if we look at it in the objective way, there is a law that says that you must give

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treatment to all wastes, whether it is a small percentage or a large percentage, and some attention has been given to this part of the problem.

MR. STEIN: You can appreciate this, and Mr. Metzler has dealt with this in the past. If you are going to deal with the pollution problem, there is no way of cutting it. You have to deal with small and large places.

I remember we faced this problem in the 1950's in some of the Missouri cities, where we had run into industrial firms employing ten people, four people, having one water-closet. The question was where you cut, and after much cogitation and work on this we decided you could not cut anywhere. If you put Swift and Armour on, you had to go to the smallest.

Another thing we have found out is that in dealing with pollution problems, very often in a city of this kind, or in most large cities where you have an industrial-municipal problem, industrial pollutants are often masked in this municipal-industrial complex.

True, compared to your major problem it is relatively small, but once you do clean up, these things really stick out like a sore thumb, so it seems to me that the program should be designed to get them out.

Don't you have authority in New York City to make

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a man hook up to a sewer system?

MR. JOHNSON: We have authority both at the local and at the State level to compel the abatement of pollution from whatever source it exists.

We can also, through this authority, compel the tie-in to our local sewerage system.

MR. STEIN: You know, I wish you would give my regards to Harold Romer, whom you mentioned. I have read his material on combined sewers.

As a matter of fact, the co-author of Mr. Romer's articles is the conferee on my right.

MR. KLASHMAN: Thank you.

MR. STEIN: Mr. Metzler?

MR. METZLER: Lest there be any confusion either in my mind or anyone else's about how the industrial waste situation is handled here in New York City for those not now tied into the municipal system, am I correct in saying that the New York City Health Department and the New York State Health Department have an agreement about how we deal with these, that in general the New York State Health Department will handle the bigger polluters, and that the smaller ones will be handled by the New York City Health Department, unless there is some special reason that you think we can be helpful, and that the Department of Public Works cooperates

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as a member of this team by doing a complete industrial waste survey so that we know where all these sources are?

Is that about a correct summary?

MR. JOHNSON: Well, let's say that we certainly agree that we will cooperatively handle the problem.

I am not sure it is my understanding that the ultimate responsibility for locating the polluters rests with the Department of Public Works. I would, for my own opinion, say that this is a New York City Health Department responsibility. We have it by charter. We have it by the program that we have set up to carry out the responsibilities under our charter, and I would like to believe and would continue to push for this as our responsibility.

MR. METZLER: Well, if we have identified an area here in which we need to clarify this between the two city departments involved and the State of New York, I can assure the conferees that it will be, and we will report back next time.

MR. STEIN: Thank you, Mr. Johnson, for some very helpful comments.

You know, for years Mr. Johnson was the mainstay of the Federal program until New York lured him away.

MR. METZLER: Pardon?

MR. STEIN: For years Mr. Johnson was the mainstay

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of the Federal program until you New Yorkers lured him away.

MR. METZLER: You've just got to admit that New York has got whatever it takes. (Laughter)

Now, with the concurrence of the Chairman, I would like to start in on the upper end of the Hudson and move downstream with the rest of the witnesses that we have today, cleaning up the Hudson as we go, starting both alphabetically and with my old local Commissioner of Health, Dr. John Lyons, who is Commissioner of Health for Albany County and the Chairman of the Albany County Sewer Agency, who will give you a report on what it is actually like on the firing line, when you are trying to organize twelve or thirteen different governmental groups into a single authority here.

STATEMENT OF JOHN A. LYONS, M.D., COMMISSIONER OF HEALTH OF ALBANY COUNTY, CHAIRMAN OF ALBANY COUNTY SEWER AGENCY

DR. LYONS: Thank you, Mr. Metzler.

Mr. Chairman and Ladies and Gentlemen:

I am speaking as the Chairman of the Albany County Sewer Agency, and I want to thank Mr. Metzler for those kind words.

Albany County has been working on its water

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pollution control program for over four years. In 1963 thirteen communities in Albany County banded together to form the Joint Municipal Survey Committee, which received funds from the State Health Department for a comprehensive sewage study. The study area included approximately 95 percent of the population of Albany County. A contract for the study was signed June 26, 1964, with Malcolm Pirnie Engineers of White Plains, New York. This study was completed and approved by all participants in November of 1966. It contained two major alternatives.

In Alternate A, each community would provide one or more of its own sewage treatment plants, which would result in approximately twenty-two sewage treatment plants throughout Albany County. Alternate B called for combining eight communities with two major treatment plants serving them.

On January 16, 1967, the Albany County Board of Supervisors created the Albany County Sewer Agency, naming four other members besides myself. The agency was charged with the responsibility of determining if a county sewer district could be established and what its boundaries should be.

Shortly after, Malcolm Pirnie Engineers again was retained to prepare maps and plans to show the proposed boundaries of the district and the proposed locations of all facilities in accordance with Section 253 of the County Law.

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This report was completed and presented to the County Sewer Agency on July 25, 1967. The agency reviewed the report and recommended to the Board of Supervisors that the County Sewer District be formed in accordance with Alternate B to serve eight communities with two treatment plants. This report estimates a total construction cost of 38 million dollars, with 16 million dollars of local money and 22 million dollars of State and Federal aid and will service about 80 percent of the population of Albany County, or 220,000 citizens.

At the August meeting of the Board of Supervisors, this proposal was presented and a date for a public hearing on the Sewer District was established. The public hearing was held on September 11, 1967. At this hearing there was no opposition to the proposal. It received the full support of the Board of Supervisors and the attending public.

The Board of Supervisors will take action before the end of September. After they take this action, there are many delays required by the County Law. Mandatory waiting periods of seventy days are included. Approval of the New York State Department of Audit and Control is necessary before creation of the Sewer District. With all these built-in delays, it is anticipated that the County District will be formed by the end of 1967. All of the communities involved

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in the County Sewer District, except the Village of Colonie, are presently under orders by the New York State Department of Health which requires that final plans will be submitted by January 1, 1968. In view of the legal delays for the formation of the County District, we realize that we will not have final plans by this date. We will, however, have them early in 1968.

In creating the County Sewer District with multi-municipal cooperation, we feel that we have moved as fast as possible towards the overall aim of water pollution abatement in Albany County. If we don't run into more delays than we have presently anticipated, we will be under construction with some of our facilities in the fall of 1968. We feel we have developed the best possible proposal for water pollution control in Albany County. Eight different communities, with varying political faiths, have joined together 100 percent in a common goal to fight water pollution in the Albany County area of the Hudson River.

Thank you.

MR. STEIN: Thank you, Dr. Lyons.

Are there any comments or questions?

(No response.)

MR. STEIN: Sir, I want to commend you on that effort. This is really water pollution at work, and I think

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this is one of the areas that we often overlook.

Sometimes we get to one city, one town or two cities, two towns, and we have only one part of the spectrum. Here where New York City looms not only in size, but also with its pollution problem, it is close to the problem. This is unique. It has to be. We get every phase of the program.

However, the problem that you are facing is one that can be solved, but it takes a lot of effort and a lot of work.

I hope you are as successful as St. Louis was. They had the combined City of St. Louis and St. Louis County with about 127 different towns, but the thing is working.

Other than some of these New York projects that are going on, the St. Louis job was the biggest pollution control job in the country. As a matter of fact, their interceptor is so big it is like one of your subway lines, and you can drive a train through. This was what was needed in order to do the work in St. Louis and make the job easy.

Now, in contrast to this, and this is no criticism of anyone, on the east side of the river in Illinois we have some 21 separate communities and 10 or 12 different industries. The State had to tackle all of those one at a time, and in dealing with all of these, I think we achieved, hopefully, the same results.

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There is a good deal to be said for this regional approach and the regional plan in getting together. I think it is probably more economical once you get the thing done for all concerned.

In St. Louis, for example, I think we are going to wind up with two or three plants, and on the east side of the river we have at least 30, so that is the difference.

Thank you very much.

MR. METZLER: I want to pay tribute.

I don't know of another example -- there may be others -- where a local health department, a county health department, has exercised not only the kind of leadership, but the quality and the balance between some pretty complex political forces in order to weld this kind of a thing together.

This is one of the most exciting things in inter-governmental relations that I have observed in a long time, and you and your staff deserve a lot of credit for that.

DR. LYONS: Thank you.

MR. STEIN: Let me go off the record.

(Discussion off the record.)

MR. STEIN: Mr. Metzler?

MR. METZLER: We will now move right across to the opposite side of the river, still on the capital side of

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the river, to Mr. Keeler. Mr. Keeler is the Chairman of the Rensselaer County Sewer Agency. For those of you who know the geography down this end of the State better than up on the other end of the Hudson, they are our neighbors off the east end of the Hudson.

STATEMENT OF RICHARD W. KEELER, CHAIRMAN
OF THE RENSSELAER COUNTY AGENCY FOR ABATE-
MENT AND CONTROL OF POLLUTION, TROY, NEW YORK

MR. KEELER: Chairman Stein, Members of the Conference, Ladies and Gentlemen:

My appearance here today was brought about by a sincere desire to be of assistance to you and your conference, as well as to the various-sized municipal governments in New York State that are involved in water pollution and, particularly those municipalities between New York City and the Federal dam in Troy, and by the excellent cooperation of the Commissioner of Health of the State of New York Pure Water Department.

My entrance into local politics came about rather abruptly in March of 1966 when I was appointed Supervisor of the Town of Brunswick, Rensselaer County, to fill an unexpired term. After a brief reading of a comprehensive

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sewage study, WPC-CS-19, of Troy and environs, completed in September of 1965 and accepted by the New York State Health Department in January of 1966, I wrote to the Commissioner requesting that the Health Department initiate the necessary steps to bring about a joint community effort that would eliminate the pollution of the Hudson River in the vicinity of Troy and at the least possible cost to each of the offending communities.

The realization that Governor Rockefeller's one billion dollar sewer bond proposal, voted overwhelmingly by the people of the State of New York, would not in itself, nor would the State of New York undertake to correct the situation by itself, came to me during the public hearings held by the Health Department to establish a timetable for our area to solve the pollution problem. The local municipal official is one of the keys to the implementation of this program. The success of the entire Federal program, as well as the success of the State program, rests at the local level of government. The local official, therefore, needs education and support from both the Federal and State level in order to bring this about.

My understanding of State and Federal aid is that New York State, out of the one billion dollar sewer bond, will provide 30 percent of the total cost of the approved

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facilities and this money is available. The Federal Government will supply 55 percent of the total cost of the approved facilities and this money is not available. Therefore, in our State, the State government will prepay approximately 30 percent of the total cost for the Federal Government, thereby making a guarantee to the local official of 60 percent State and Federal aid. The second key to success, therefore, is the 25 percent of Federal aid in various forms; regardless of how well planned, prepared, approved, etc., there is not sufficient funds available from the Federal Government to cover the demands of regional pollution abatement programs.

The local municipal official, therefore, is the one who must go to his neighbor, sell him on a pollution abatement program, raise his taxes to pay for this program, tell him that he may or may not receive additional Federal aid (like the carrot in front of the donkey), and after it's all moving along quite well, and the additional aid does not come, still say "Good morning," still smile and hope that he smiles back, still expect him to vote for you at the next election, and still try to explain why the Federal Government in Washington is willing to take his tax dollar and send it all over the world, except to send a small portion back home to help alleviate one of the major problems of conservation

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existing in the United States today. The implementation of this sewage pollution solution, with a guarantee of 85 percent combined Federal and State aid, would be much easier to sell and would enable all communities to meet the established timetables as stipulated by the Commissioner of Health of the State of New York.

As Chairman of the Rensselaer County Sewer Agency, it has been my privilege to serve with a blue-ribbon agency of professional engineers who have given many days and hours of voluntary service to bring the agency to a point where, for the City of Troy and the towns of North Greenbush, Schaghticoke, Brunswick and Sand Lake, the agency is now preparing a brochure for mailing to all prospective members of Rensselaer County Sewer District #1 as a preliminary to the holding of a public hearing by the Rensselaer County Board of Supervisors. The meeting of the timetable for our area as established by the Health Commissioner is moving along on schedule. The agency has hired an engineering firm and, after the formation of the Sewer District, will hire the necessary financial and legal advisers and instruct the engineers to submit the final comprehensive plans to the Health Commissioner in time to meet the schedule. Our area should complete its share of the control of pollution of the Hudson River by 1971 and the arranging for sufficient funds by you

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to cover the 25 percent of total cost, for all areas that qualify, will speed up and implement the entire program.

'I fully realize that the demands on our Federal Government for funds to operate the multitude of needed programs throughout the United States, as well as our foreign commitments, both military and otherwise, place an enormous burden on the proper and judicious allocation of funds, but I also fully realize that if we as a Nation do not take care of ourselves first and then take care of our neighbors as best we can, there will eventually be no Nation to take care of, and it is at this point in our future history when we as a Nation will find out that we are standing alone to face our judgment while our neighbors stand by and watch.

Thank you for listening, Chairman Stein, to one of 200 million Americans who happens to be a local public official trying to do his best for the citizens of his community.

I would like to add one little point, if I may.

Please help us a little more as far as HUD moneys are concerned for the local small sewers, not just the big treatment plants or the interceptors.

Thank you very much.

MR. STEIN: Thank you for an excellent statement.

I am going to stay away from international remarks,

but I do agree that the local municipal official is one of the keys to the implementation of this program. The success of the entire Federal program, as well as the success of the State program, rests at the local level of government. I don't think there is any doubt about that. I would suspect that my colleague, who works at the level of government in the State, would agree.

I have noticed one thing about our democratic system of government in going around on pollution cases in various parts of the country. What solves a municipal pollution problem is a state of mind by a particular group of local officials to really get moving in an efficient way, not to drag along and not to waste any more time, because if you do you are going to run into what Governor Rockefeller said you were going to run into, mounting costs. I don't think that procrastination pays off.

Unless the local official comes to that realization and comes to that conclusion, no one in the State, no one in the Federal Government, and no one, I might say, in an interstate agency, is going to do this. You are the prime movers. You have to make the decision.

All we do is sit around and perhaps push and heckle so that you wish we would get out of the way sometimes.

The key to the problem is the local official. I

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don't care whether this is New York City, or Rensselaer, or anywhere else, because the story is the same. You are the ones who build and operate pollution plants, and you are the ones who are going to clean up the pollution.

Thank you very much for your work. I am delighted to see that you are baptized, and welcome to the fold.

MR. KEELER: Thank you.

MR. STEIN: Thank you.

MR. METZLER: We have one other representative from Rensselaer County, Mr. Carl Stefanic, who is here for the local Health Department of Rensselaer County.

The local Health Department in Rensselaer County, as in Albany County, has played a very major role in bringing about this cooperative county-wide effort.

STATEMENT OF CARL STEFANIC, ON BEHALF OF
DR. H. JACKSON DAVIS, COMMISSIONER OF
HEALTH, RENSSELAER COUNTY, NEW YORK

MR. STEFANIC: I am here representing Dr. Davis. He couldn't be here because he is preparing for a hearing on the 1968 budget, and he asked me to appear in his behalf.

Dr. Davis has this statement:

Two years ago New York State-financed comprehensive

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sewerage studies were underway for those municipalities in Rensselaer County bordering on the Hudson River even before the citizens of New York State overwhelmingly voted for our two billion dollar pure waters program. It has been stated that it is the purpose of this reconvened conference on pollution of the Hudson River and its tributaries to review existing problems, evaluate the progress being made, and to plan future action.

Today, these studies are either completed or are awaiting approval by the New York State Department of Health. A plan then has been formulated to provide sewers and sewage treatment for the Cities of Troy and Rensselaer, the Village of Castleton, and the Towns of Brunswick, North Greenbush, Sand Lake, Schaghticoke, East Greenbush, and Schodack, comprising over 85 percent of the population of Rensselaer County.

The Village of Hoosick Falls on the Hoosic River, a major tributary to the Hudson, is proceeding to construct sewage treatment facilities in the near future. The Village of Valley Falls, independent of State financial assistance, has completed its own comprehensive sewerage study.

To date, all major polluters of the Hudson River, both municipal and industrial, within Rensselaer County have been cited with a State Health Commissioner's Order to cease and abate pollution of the Hudson River immediately or to

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submit to a reasonable timetable of corrective action.

Such remedial action is necessary to make the Federal program and the State's Pure Waters Program effective.

A major accomplishment in Rensselaer County is the formation of a comprehensive County Agency whose immediate goal is to solve our water pollution problem. We have two members of the agency in the audience today: Mr. Richard Keeler, Supervisor of the Town of Brunswick, who is Chairman of the County Agency, and Professor Edward J. Kilcawley of Rensselaer Polytechnic Institute. Through the efforts of the Rensselaer County Board of Supervisors and these men seated here today, with a prod from the State Health Department, Rensselaer County Sewer District #1, comprising the City of Troy and four neighboring towns which contribute sewage from approximately 80,000 people, will be brought to the public during the fall of 1967 for their acceptance. Similar situations are near occurrence in some of our smaller municipalities.

So far it appears that the water pollution problems in Rensselaer County are to be solved and that construction of all water pollution control plants will be completed in accordance with the schedule recommended by the original conference. As usual, however, there is the standard

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drawback, money. M-O-N-E-Y. The guaranteed 60 percent State and Federal aid for construction costs of eligible treatment plants and interceptor sewers is a great asset in many cases. However, in many other cases 60 percent aid on eligible items is not enough. Additional aid is necessary for treatment facilities and guaranteed State and Federal aid is a must for the collection system.

Presently, the municipalities are being teased with a dream of 85 percent State and Federal aid for treatment and interceptor facilities. For the basic 60 percent, where is this other 25 percent? Rensselaer County is eligible for all of it. 10 percent is available if New York State matches the Federal Government's 30 percent. Another 10 percent is available if enforceable water quality standards have been established for the receiving waters in New York State. Another 10 percent of the Federal grant amount, say 5 percent of the total eligible costs, is available if the project is certified by a regional planning agency. We qualify for all three. Where is the money?

HUD grants are supposedly available to cover 50 percent of the collection system, a major cost in the unsewered housing areas. No one appears to be getting such a grant.

The problem then appears to be this: the cost

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to the average homeowner is prohibitive without additional aid. Municipalities and projects subject to permissive referendum may wait until the additional 25 percent aid for treatment costs and 50 percent aid for collection systems is available. A significant delay in meeting the abatement timetable can be expected. Guarantee these monies now and the goal of this conference will be realized.

On behalf of the Rensselaer County Board of Supervisors and the Rensselaer County Department of Health, I wish to express my wholehearted support of the goals of this conference -- to review, evaluate, and present a plan for action in our part of the Hudson River Basin.

Thank you.

MR. STEIN: Thank you.

Are there any comments or questions?

MR. METZLER: Will you wait just a minute, please?

Responding to your last remarks there that the costs to the homeowners are higher, are you talking about homeowners who are already on the sanitary sewers?

MR. STEFANIC: We have many unsewered areas, and this is where the problem lies.

MR. METZLER: Actually, from the standpoint of pollution of the Hudson River or its tributaries, this does not have much effect. Am I correct in saying this? This is

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a public health problem in that this represents pollution in the backyards. This isn't really stream pollution, is it?

MR. STEFANIC: No. They are polluting small tributaries to the Hudson.

MR. METZLER: And you are saying that you think this has enough pollution potential so that it does have some effect on the Hudson?

MR. STEFANIC: Yes, sir.

MR. METZLER: All right.

MR. STEIN: Thank you.

Are there any further comments or questions?

(No response.)

MR. STEIN: If not, Mr. Metzler?

MR. METZLER: The next speaker is Mr. James Hardin, who is Commissioner of the Division of Pure Water in Westchester County.

Mr. Harding is recognized as one of the leaders in this business of local government in New York State, and we are glad to have you here today.

STATEMENT OF JAMES HARDING, COMMISSIONER
FOR DIVISION OF PURE WATER, WESTCHESTER
COUNTY, NEW YORK

J. Harding

MR. HARDING: Thank you.

Mr. Stein, Ladies and Gentlemen:

I do not have any prepared statement. I came here to learn, and not to teach.

With respect to programs, we have submitted several programs. First, we started with a program several years ago, confined to the one plant that the county operates at the Hudson River, the Yonkers Joint Treatment Plant.

At the same time that we submitted a program, various municipalities in Westchester County along the Hudson River -- I believe there are seven that have treatment plants -- also submitted a program.

The State Health Department decided that they did not want to accept any of these programs, or, rather, that they did not want to allocate funds for an engineering study to the seven separate municipalities and to the county, and that they wanted a county-wide study taking not only the Hudson River Basin in, but the entire area of Westchester County.

That has delayed things and it will continue to delay things. It poses a lot of very complicated procedural and engineering problems.

After this meeting, we will get together and try to arrive at a more realistic program.

J. Harding

I believe that your Department asked the consulting engineers, who were only hired a month or so ago, to get in a preliminary report in three months. Well, that's nonsense. We will be lucky if they do it in a year.

I am a little bit worried about these new effluent standards about which I have heard rumors. I don't know what it is proposed to establish, but when we designed the Yonkers plant, it was designed by a prominent firm of engineers, and after consultation with your Department, Mr. Metzler, secondary treatment was provided for to accomplish removals that at that time they thought reasonable.

Land was built out into the Hudson River, made land, based on what the requirements were thought to be at that time.

If you come up with any standards like I have heard today, we are really going to be up against it, and I think we are going to be faced with further delays and greatly increased costs.

Frankly, I am afraid of regulatory agencies, such as are represented at your table right now. You are very prone and you are often accused of being prone, anyway, and I really agree with the accusation, to set high standards without worrying too much about the cost, and I think you should give the cost very great consideration before you fix

J. Harding

the standards.

I was shocked when I heard on the radio this morning that Senator Kennedy was going to present a statement here calling for 90 percent removal. If a standard like that goes into effect on the Hudson River and similarly around the rest of the State, and if the Federal Government continues to put up the magnificent sums of peanut-size that they have put up to date, the billion dollar bond issue is going to be worn out awfully fast, and by the time we get our plans out and are ready to let construction contracts, you won't have any money to give us.

Westchester County people, of course, are very conservation-minded, very pure-waters-minded, but they are also tax-conscious. If something comes along that is going to raise their tax rate tremendously, I think your pure waters program is going to get a setback.

I heard Commissioner Hult's talk. There was one thing I did not agree with him about. You asked him the question -- I think it was Mr. Stein's question -- whether he thought the program would be slowed down by lack of competent engineers, contractors, equipment, and so forth, and Mr. Hult said he didn't think it would be.

I think it will be. The consulting engineers that I know, and I know most of the high-grade ones in the

J. Harding

waste business, all have as much work as they can handle. A lot of them continue to take more, but after a few drinks, they'll tell you they don't know how they are going to get it done. (Laughter)

They are pirating men from each other, just the way you pirated from New York City. There is a lack of skilled contractors, we find, when we are taking bids now on pumping stations, filter plants, and so forth, and the delays in obtaining equipment are getting to be fantastic, especially if it is special.

So I would say it will slow down your program. I don't mean to imply that you can't meet your 1972 deadline, but in order to meet that, all of us are going to really have to put out superior performance.

I think the State Health Department has got to be the leader, and has got to really put the heat on the local municipalities, local taxpayers' organizations, and so forth. We will, of course, be glad to cooperate.

Thank you for this opportunity.

MR. STEIN: Thank you for a very complete and frank statement of your views, Mr. Harding.

Are there any questions or comments?

(No response.)

MR. STEIN: By the way, how much removal do you

J. Harding

have in the plant now?

MR. HARDING: I will have to ask Mr. Griffin.

MR. GRIFFIN: At the Yonkers plant, they are removing about 62 or 63 percent of suspended solids, and just under 60 percent BOD. The plant was designed on a 60 percent removal of suspended solids, and with chlorination.

MR. HARDING: I might add one thing, that years ago we were told by your Department that we should provide for secondary treatment.

Well, of course, secondary treatment has been very poorly and very awkwardly defined in the past, but with this talk of 90 percent now, you talk about what we used to call final treatment, tertiary treatment.

MR. STEIN: That's right. I don't think there is any question about that.

MR. METZLER: Mr. Harding, if I might comment here to compliment you on the statement, it is this kind of frank evaluation and knowledge of the local officials that help guide the program with respect to the degree of treatment and the standards that are set.

There isn't any doubt but that the same standards which New York State set up for the Hudson are going to require a high degree of treatment, and we need to work with you on the details as to what this is.

J. Harding

We have defined secondary treatment in New York State officially, but it is still really getting down to what kind of treatment do we need to make the kind of a stream out of the Hudson with the stream standards which the State submitted requires? I agree with you.

MR. HARDING: You ought to put a paragraph at the end perhaps, and say that the local municipalities can collect the samples. (Laughter)

MR. STEIN: Mr. Klashman?

MR. KLASHMAN: What type of a plant are your engineers planning to design, and what type of removals do you anticipate?

MR. HARDING: Well, we haven't gotten that far yet.

MR. KLASHMAN: I mean, you are talking about activated sludge, aren't you?

MR. HARDING: We originally figured on high-rate aeration, but it looks as if you are talking now about activated sludge.

MR. KLASHMAN: Thank you very much.

MR. STEIN: One thing: I do think that in the last analysis the local officials have to collect the information.

In New York State and in New Jersey, I think it

J. Harding

is fair to say here that once you collect it, you get full information. I don't think there is any question about who should collect or be the original source of collecting this, and I think on a day-to-day basis you are going to have to deal with Mr. Metzler for some checks. That is going to have to continue, and when they recognize that they are suspicious, they will go to agencies like us.

We only come around once in a while, but you are going to have to work with Dwight every day.

MR. METZLER: May I say something off the record?

MR. STEIN: Surely.

(Discussion off the record.)

MR. STEIN: Mr. Metzler?

MR. METZLER: We have one other witness, Mr. William Lathrop Rich.

STATEMENT OF WILLIAM LATHROP RICH, CHAIRMAN
OF THE COMMITTEE FOR THE NEW YORK - MONTREAL
SEAWAY

MR. RICH: My name is William Lathrop Rich, and I am called that because there are other William Rich's in New York, and we have had plenty of complications in the past.

W. L. Rich

I am going to indulge in a little variance in some of the comments. Mr. Seymour sort of set the standards for me, so I am not a bit ashamed to go ahead with what I have to say.

Mr. Chairman, Honored Guests, Ladies and Gentlemen:

The Committee for the New York-Montreal Seaway, of which I am the Chairman, drifted into the problem of the pollution of the Hudson River as a result of its more than ten years of research related to the proposed seaway between New York City and Montreal, Canada.

The function of that proposed seaway was to provide a shortcut for ocean vessels to traverse between the ports of the South Atlantic and of the Far East and the ports on the Great Lakes, because it would afford the shippers, between those ports, a means of reducing their delivery costs through the reduction of their freight charge, made possible by this shortcut, which use would afford a reduction of shipping time between the ports.

The International Joint Commission has recently released a survey report which reached an erroneous conclusion because the survey was conducted under a false premise because dimensional restrictions were introduced into the survey, which were not in accordance with the survey

W. L. Rich

authorization, which our committee was instrumental in securing, with the result that the survey was based upon conditions that existed in 1935 and not upon the requirements of today -- 1967.

One of the basic requirements for such a seaway is that it must have a constantly maintained depth and water level.

That requirement being axiomatic, it soon became obvious to us that the only practical means by which a constant water level and depth of the seaway at the docks at Albany, New York, could be maintained, was by the construction of a dam, having appropriate locks for the traversing of vessels, across the Hudson River below Albany.

When the polluted condition of the Hudson River became so obvious that it drew recognition, we released a statement to the press on May 20, 1965, which stated in effect that by locating that dam, which we had found our project required, down the river a short distance above Yonkers, opposite Graystone, New York, the Hudson River could eventually be converted into a fresh water lake, one hundred and fifty miles long, provided that the pollutants, entering the river upstream, were eliminated.

This use of a dam, to maintain a constant water level, is not new or without precedent and I believe that

W. L. Rich

most of you are aware of two conspicuous examples of a dam used to secure that result. They are the one maintaining the lagoon in the New York World's Fair and the other one maintaining the Charles River Basin in Boston, Massachusetts.

The length of time that will be needed to convert the waters of the Hudson River into fresh water will depend on how fast President Johnson's Water Quality Act of 1965 and Governor Rockefeller's \$1 billion plan to combat water pollution are made to function.

Now you ask, why that dam?

The dam's basic function is to prohibit the movement of the polluted salt waters that surround the City of New York and the brackish contaminated waters of the bay, from moving up the Hudson River with the tides.

Gentlemen, that is the point. I was talking to Governor Rockefeller this morning about what was evidently eliminated from all consideration, stopping the movement of the salt brackish water up the Hudson.

That principle of the use of a dam to exclude salt water has been recommended for the treatment of the harbor of San Francisco, to accomplish that same purpose.

If that dam is properly designed, having locks for the traversing of vessels, it will present no bar to the bass, the shad, the sturgeon or any other fish from moving up the river for spawning.

W. L. Rich

When the waters of the Hudson River are once again returned to their former fresh state, they will again be safe for swimming, without fear, as at present, of contracting typhoid fever. Other marine sports and rehabilitated fishing can again be enjoyed and other marine life will prosper.

Do not overlook the fact that that proposed constant river water level, which will be equal to and no higher than the present flood tides, which now prevail on the Hudson River, will permit the building of permanent docking facilities, eliminate the damage to shore installations done by the ice in the winter, which is caused by the fluctuations of the tides, and permit the maintenance of clean shore lines.

The resultant fresh water, above that dam, will also be available for use by the cities up the Hudson River, the State of New Jersey, to refill its reservoirs and, with the cooperation of the Consolidated Edison Company, the City of New York, then also refill its reservoirs by making use of the pumping station that the consolidated Edison Company is to build at Cornwall, on the Hudson.

Let us now bear in mind that the waters of the Hudson River at Chelsea, 56 miles upstream from Midtown

W. L. Rich

Manhattan, as reported by Ian Rae, Staff Writer for the Journal-American, June 27, 1965, "are dangerously polluted but also taste horrible -- more horrible than the castor oil my mother gave me as a child," and Paul Hofman reports in the New York Times, August 29, 1967, that the report by the Geological Survey of the Department of the Interior that the sea water front is moving further upstream in the Hudson River, and that the intrusion of sea water was caused by the siphoning off of more and more fresh water from the Hudson River estuary by communities and industries north of New York City.

In conclusion, may we state and remind you that this proposed conversion of the presently polluted Hudson River into a fresh water lake, one hundred and fifty miles long, is only one of the numerous bonus benefits that will accrue to the State of New York and to the other regions along its route, when our proposed New York-Montreal Seaway is built, that the siphoning off of fresh water from the Hudson River by the communities and industries will increase yearly more and more, that the starting up of the Consolidated Edison Company's pumping station at Cornwall, will hasten the movement of the sea salt water front up the Hudson River and that even if all the pollutants are eliminated from all the waters flowing down the Hudson, the result will be futile

W. L. Rich

and fresh water will become less and less available, due to the increasing intrusion of the contaminated salt water from the bay, unless that dam, which we have recommended and have found essential to our proposed New York-Montreal Seaway, is constructed across the Hudson River and thus stop the ever-increasing intrusion of that contaminated salty bay water up the Hudson River.

We recognize that what we are recommending will cost large amounts of money but because the fresh water situation has become so critical that drastic action has now to be taken to correct it and that, not only the State of New York but the rest of our Nation has reached such a fresh water crisis that now a decision has to be made as to whether it wants to have fresh water or to hang on to its money, in spite of the ever-growing fresh water shortage.

We thank you.

MR. STEIN: Thank you, Mr. Rich, for your complete statement.

Are there any comments or questions?

MR. METZLER: No.

MR. STEIN: Thank you very much.

Mr. Metzler?

MR. METZLER: Are there any others here from New York State who would like to speak, who have not made their

names known?

(No response.)

MR. METZLER: With that, Mr. Stein, this concludes the list of New York witnesses.

MR. STEIN: All right. Fine.

I will now try to give you the program for tomorrow, as best we can. There may be one or so more witnesses who want to be heard.

We will convene here at 9:30 in the morning. At that time, if there are any more public witnesses, they will be heard. If not, we will recess and have an executive session.

At the present time, depending on the length of time for the witnesses, and the complexities of the matters in the executive session, we would hope to have an announcement at about 11:30 in the morning.

Now, as things develop, and I hope the staff comes up with some ideas overnight, we may be able to give you another judgment in the morning of how long it will take, but I think we pretty much have a feel of how this is going and I am pretty optimistic that we can come up with an agreement among the conferees.

I will say this: We have had some pretty tough cases in the past, but our record has been unanimous all the

time, and we have not had many dissents. I hope after we have worked this case over, we will be able to come up with unanimous conclusions and recommendations.

I would like to point out that a month or two ago we did that with relation to the waters below here on the Raritan. We are upstream now. I hope we can continue this record.

We will stand recessed until 9:30 tomorrow morning in this room. We will have our public session, recess again, and then the announcement will be made. It will probably be made here about 11:30 tomorrow morning, unless we announce a different time tomorrow.

We stand recessed until 9:30. Thank you.

(Whereupon, at 5:00 p.m., an adjournment was taken until Thursday, September 21, 1967, at 9:30 a.m.)

Second Session of the Conference in the Matter of Pollution of the Interstate Waters of the Hudson River and its Tributaries, held at the Statler-Hilton Hotel, Broadway at 32nd Street, New York, New York, on September 21, 1967, at 9:30 a.m.

PRESIDING:

Mr. Murray Stein, Assistant Commissioner for Enforcement, Federal Water Pollution Control Administration, Department of the Interior.

CONFEREES:

(As heretofore noted.)

C O N T E N T SPAGE

James F. O'Donnell
representing Frank D. O'Connor

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J. F. O'Donnell

P R O C E E D I N G S

MR. STEIN: May we reconvene?

I believe we may have one or two more statements from New York.

Mr. Metzler?

MR. METZLER: It is my understanding that Mr. O'Donnell is here to present a statement for Frank O'Connor, President of the New York City Council.

STATEMENT OF JAMES F. O'DONNELL, ON BEHALF
OF HON. FRANK D. O'CONNOR, PRESIDENT OF
THE CITY COUNCIL, CITY OF NEW YORK

MR. O'DONNELL: Mr. O'Connor is sorry he was unable to accept your gracious invitation to speak here this morning. He happens to be up in Hamilton, New York, with the American Management Association, and probably, after he reads an account of the speech here this morning, he will have to assume ambassadorial robes in that connection. (Laughter)

Imagine, if you will, a man somewhat shorter than myself, a lot more personable, and a lot more kind, and you get some picture of Mr. O'Connor, so if you will accept the perpendicular pronoun here, we will get to the short speech.

I am happy to have been invited here this morning.

J. F. O'Donnell

Pollution has long been a concern of mine, since I served as District Attorney of Queens.

For those of you who don't know where Queens is, it is a borough across the river here. There are two million people here, and perhaps a graphic way to describe it is that it is a suburb of Newtown Creek. (Laughter)

I saw graphic examples there of the damage and injury done to one-family housing and its occupants by the vapors from highly polluted areas. Paint peeling off the walls, suffocating nauseous odors and smells which made living unbearable in areas already harassed by a noise pollution second to none in the country.

Last year I saw first-hand the extent of water pollution throughout our State from Lake Erie to Lake Onondaga, to the Mohawk River and Lake Champlain; along our own once gorgeous Hudson, to the lower bay of New York, to the East River and Newtown Creek, and, yes, even to the Long Island shore.

This summer on trips around the city itself, I saw samples taken of our waters which underscored the fact that there are more marginal and unsafe waters for swimming than actually safe waters. Surveys conducted by the city's Health Department and a joint team of city, State and Federal authorities confirm these conditions with new findings.

J. F. O'Donnell

Shellfishing for clams was forbidden and the State posted fishing areas on Staten Island off-limits. But city people continued to swim this summer in waters that were far in violation of the State's own standard of 2400 coliforms per milliliter of water and they swam without first being informed of the facts.

Just parenthetically, surveys taken at certain beaches on Staten Island, for example, showed that at a given sample there were 240,000 coliform per milliliter of water, which is well in excess of 100 times what the State limit gives. On an average, it was 70,000 coliform per milliliter of water.

As a result, we urged the city's Health Department to post the beaches and waters of the city as to their condition -- either as safe, marginal or unsafe.

Unfortunately, this was not done in time this year for some unexplained reason, although there is an indication that posting may take place next year. In the interim, we have submitted legislation making it mandatory on the city to post beaches and their waters.

I begin my remarks by this account for several reasons. One to thank the Federal Water Pollution Control Administration, the Corps of Army Engineers and the City's Health Department for conducting that joint survey at our

J. F. O'Donnell

request.

Two, to remind all of us that unless municipal authorities like the city take the lead not only in pollution control but in actual pollution information, education and planning, then how can we expect private enterprise to take seriously governmental demands for greater observance of the various pollution laws.

Parenthetically, on today's Board of Estimate calendar in City Hall, there are several items being put forward by the city administration for the establishment of pollution control facilities in the metropolitan area, and they are probably all going to be favorably received by the Board of Estimate.

And while investigation and enforcement and control have been stepped up considerably on every level, especially over the last five or six years, progress against pollution, especially its oldest version of water pollution, has been minimal at best.

There are many examples of conditions getting worse instead of better. Parts of Raritan Bay are in the words of one of today's panel a biological desert. The wake in Newtown Creek, experienced observers tell me, is actually black. And I saw first-hand myself that the wake in waters around Staten Island was during our summer survey a dull red.

J. F. O'Donnell

To recount statistic after statistic of industrial and municipal pollution by dumping raw or just primarily treated sewage into our metropolitan waters would be a boring litany for so sophisticated a group as this. But perhaps this is the trouble in a sense. We have all been inured to the tiresome, deadly list of polluters, and to the fact that deadlines for change have become schedules not to make but to break, and that higher standards are criteria to wink at rather than to observe. True, we are making some progress in New York City with reference to Newtown Creek and the items on the Board of Estimate today, and to some areas in Staten Island, but that progress is obviously not enough, not nearly enough. And this is true of every other city along the river, and of almost every business. Everybody knows it in and out of government and in and out of business. The twain meets occasionally only to twang out of tune and contact as soon as business pays a small fine for an infraction that may be its tenth, not its first.

If we punished traffic violators like we punish water polluters, we would have all died of the congestion and the combustion and the cacophony a long time ago.

The fines we levy on industrial polluters in this country are nothing more than licenses to pollute. Surely, we can speak of a growing body of cases and fines, but these

J. F. O'Donnell

are but grains of sand that we in government and industry move around more to give the impression of action and progress than anything else.

Let us in government stop playing at pollution and get down to the hard business of enforcement, not only with ourselves, but with our industrial giants, who have taken our slaps on the wrist for almost seventy years for just what they were -- a gentle reminder that they enjoyed a rather inexpensive impunity to pollute.

Now, I noticed in today's Times, again parenthetically, that there was a certain clash here yesterday between two high government officials, and a rumor to the effect that we didn't want to be part of that clash because we are still suffering from last year's debacle is not true, but the idea -- and I don't say this in partisanship -- that we are going to have clean waters by 1972 by the wave of some magic wand is kind of hard to believe.

There are many reasons why we in the city government, especially on the Council side, look upon these promises as strictly paper promises.

There is a clash, for example, between the Senator and the Governor as to whether we need two facilities on the Hudson River, or one. There are other people in the Regional Planning Association who feel that the facilities

J. F. O'Donnell

should be placed somewhere else.

A deadline of July 1st for a lot of municipal action for this area, which was set here last year, certainly is not being observed by our city. I don't say that in a partisan comment.

The items that are passing on the Board of Estimate, hopefully, today will not probably be undertaken until maybe July 1st of next year, much less completed, so we are already behind time, and a projection of one of the think tanks, the Hudson, Inc., that was reported in the Wall Street Journal yesterday indicates that they have plans for Welfare Island that involve 250,000 people in a housing development, and if this takes place between 1972 and 1980, what are our facilities, or are there specs in our present programs and plans that will allow for such expansion?

I have my doubts, and I am sure that we are not alone.

We have the laws although there may be one or two recent amendments which should revert to their old statutory language and intent. I am speaking here specifically of Section 433 of the Federal Code. We have the organization on every level, public and private -- city, State, interstate and Federal.

What we have to do now is put the jigsaw pieces

J. F. O'Donnell

together and come up with a total picture that means something positive and progressive to everyone concerned.

Let us make it abundantly clear to everyone that water pollution just does not affect the swimmer, but the ship and the shipper, the port and the landlubber. It affects everyone and its threat is growing and will continue even when we have achieved a progressive and creative program to combat pollution.

The example of the tanker, which ran aground in England this year and burst open with its 114,000 tons of oil, can in the very near future be doubled and even tripled here. The Japanese are building tankers that will carry almost a quarter of a billion tons of oil. And yet as grave a problem as one of these tankers accidentally breaking up in the New York Harbor represents, the day-to-day pollution which takes place in this area year after year makes that possible threat pale into insignificance.

How can we clean up a river that has been polluted over 300 years in five years is beyond comprehension.

I respectfully suggest that the following steps be initiated or more completely implemented if already on the drafting board.

1. Identify and publicize industries and cities responsible for pollution violations.

J. F. O'Donnell

I know this is a touchy subject. I know from talking to other people on the law enforcement end, that there is very little publicity given to court cases against industrial polluters, and the fines are laughable.

2. Develop industry-wide pollution committees in each industry and/or geographical area to set forth industry and area plans for joint action in conjunction with our various governmental agencies.

3. Schedule and meet imminent dates for pollution abatement and termination with emphasis not on the euphemism of "realism" but on the reality of emergency, for that is what we are facing in terms of pollution. After seventy years of laws -- seventy, that is, not seven, but seventy -- "realism" means only gradualism and gradualism means convenience. We cannot attack our present pollution problem conveniently.

4. Grant tax abatement and credit to industries cooperating with pollution laws and objectives and stiffer fines for those who are not.

5. Set up a special unit in the Attorney General's Office of the United States for enforcement and prosecution.

Pollution enforcement will never be as dramatic and appealing an enforcement as the Mafia is, but it certainly

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is important.

6. End the perennial war of paper promises and paper stipulations between private polluters and the government which has resulted in so much deadly delay in this area since 1899.

7. End the "pollution play-off" of one agency or subdivision against another, which is more a prospect today than a reality, by synchronizing from top to bottom the whole panoply of pollution fighters, so that we achieve the maximum impact of our various efforts and plans. I know there are some educational steps being taken this week along some of those lines, to bring home to certain people in certain governmental agencies the importance of law enforcement in this area.

8. Establish a government and industry team to study the Rhine River Valley Program which is an exemplar of what government and business leadership and initiative can accomplish.

In short, let us reward industry and municipal leadership in the war on pollution and rap the laggards with stiffer and stiffer penalties.

Even if the Governor's projection is true in 1972, we are still five years away from there, and in that interim we can make our pollution program a serious program or a

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laughable one.

Let us help educate business and the public to the fact that there is no long-range profit in pollution for anyone. Delay is deadly.

Let us remind them that if government has to do it alone, industry will pay two or three times in time, trouble and in that all-important profit picture some still think cannot now justify action against pollution.

I believe the smart industries know better. They know that a timely effort will save them years of turmoil and embarrassment.

American Cyanamid, for example, is doing a lot of research. There are some can and paper companies that actually have in their present and specs of expansion, pollution control equipment.

We in government must together with those far-seeing examples in industry provide the leadership now, to cut through the smog of misunderstanding and laxity, to get us all moving together toward that great day when clean water -- pure water -- will be a reality, and not just a glib slogan.

Thank you very much.

MR. STEIN: Thank you, Mr. O'Donnell.

Are there any comments or questions?

MR. METZLER: Mr. O'Donnell, I am Dwight Metzler

J. F. O'Donnell

from New York.

MR. O'DONNELL: Yes.

MR. METZLER: First, I hope you will convey to Mr. O'Connor my personal delight at the forthright position that he has taken, of course, on this, and the aggressiveness which he urges.

There are two or three bits of information that, if you will permit me at this time, I would like you to carry back to him, because I think they are important in this situation.

There isn't any doubt but what the northeastern part of the United States particularly, and New York specifically, have been doing this slapping on the wrist, having paper promises, and so forth, but that ballgame changed really, I think, in 1965, when the New York voters put up a big bond issue to help subsidize the needed treatment works.

The two major changes really that have occurred are that people are determined to clean up, and that these grants are now available.

New York, as you know, is participating in \$39 million in Newtown Creek, and we are talking about \$110 million up on North River, and with this kind of assistance, I think this provides some tools for the city governing body here which you have never had before, and which will, I

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think, help us get the job done.

Yesterday we heard a presentation by Commissioner Hult which gave us an outline of the city's program with time schedules. This is a result of pressure we have been putting on to get a realistic schedule that can be phased into a big construction program and get it done.

We have been working on this for about eight months, so it wasn't something arrived at hurriedly, and from the standpoint of the conference, I think it was probably the highlight of yesterday.

If New York City is moving with this speed, with this kind of leadership, we believe that they are going to get the job done.

Now, you referred to the need for law enforcement. We hope we never have to come to this situation with New York City, but as far as New York State is concerned, a department has been set up in the Office of the Attorney General to enforce pollution, and we have those cases referred to them, and they are moving very aggressively on about twelve thus far, and twelve out of more than 300 major polluters with whom we are working is not a bad percentage. Most of them are moving along, and thus far, on a schedule which looks like a realistic one and which looks like we are going to have the major part of this job done by the end of 1972.

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MR. O'DONNELL: Let's hope so.

MR. METZLER: We appreciate the kind of leadership that Frank O'Connor can give this, and we are delighted for this bipartisan approach so far as the city is concerned.

MR. O'DONNELL: Thank you.

MR. STEIN: Any further comments or questions?

DR. KANDLE: Yes. I would like to make a comment about one part of Mr. O'Connor's report. On Page 2 he makes the allegation: "Parts of Raritan Bay are in the words of one of today's panel - a biological desert."

I don't know who said that. I didn't hear it, and President O'Connor apparently doesn't take responsibility.

I presume, however, that if he were to take responsibility, it would have reference to the part of the Raritan Bay which is part of New York State, because I can assure you it is absolutely not so with regard to the New Jersey parts of the Raritan Bay.

MR. O'DONNELL: Thank you very much.

DR. KANDLE: This is a dynamic area, and I take considerable exception to this sort of thing, which I think is an irresponsible, glib slogan, to quote President O'Connor.

MR. O'DONNELL: Well, I think you answered your own question.

J. F. O'Donnell

I don't know the gentleman's name. I think you answered your own question by saying that it is an area that involves New York State.

DR. KANDLE: It refers to the tail end of Staten Island, and as an old resident of Staten Island, I even take exception to that.

MR. O'DONNELL: I should have known better. You probably live in Jersey City. (Laughter)

DR. KANDLE: Now you're in deep water. (Laughter)

MR. O'DONNELL: Well, I will try to get beyond that, but I would think, speaking for myself or for Mr. O'Connor, that we didn't mean to insult the State of New Jersey or New York.

MR. STEIN: Are there any further questions?

(No response.)

MR. STEIN: I would like to thank Mr. O'Donnell for making Mr. O'Connor's statement.

When we get perceptive, meaningful and sophisticated statements from the political leaders, such as we have gotten from Mr. O'Connor, the Governor, Senator Kennedy and Senator Javits -- once we have this kind of knowledge and awareness -- we know that we are going to have clean waters and pollution control started.

This was the key that one of the speakers

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indicated when he was here yesterday. The gentleman from Rensselaer said that after coming to all these meetings with officials like us, he finally recognized that they were the people, and that the local municipal official was the one who was going to have to make the decision.

I have always had a feeling about this, and I have watched this a long time. In our society, the key political power either rests with the Federal Government, the States, counties, or cities. Until the people who are politically responsible in those areas make up their minds that they are going to have pollution control and clean waters, you don't have it, no matter how fine the planners are, and how fine the technicians are.

We can keep this alive and push it. But I think that on all levels -- on the Federal level Senator Kennedy and Senator Javits, on the State level the Governor, and on the city level the President of the City Council -- when we see all those people making such a sophisticated analysis of the problem to have this going down from Albany to New York on both sides of the river, to me, this is an indication that we are on our way to pollution control.

I want to thank you and President O'Connor for his message.

MR. O'DONNELL: Thank you.

MR. STEIN: Are there any further questions or comments?

(No response.)

MR. STEIN: Are there any further people?

MR. METZLER: I have no record of anyone else.

MR. STEIN: If we recess now and we do our work diligently, I think we may be able to have an announcement by 11:30, or not later than 12:00.

If we run into problems, we will send word out.

The conference will recess to have an executive session. We will meet here again at 11:30. We stand in recess.

(Whereupon, at 10:05 a.m., a recess was taken until 11:30 a.m.)

MR. STEIN: May we reconvene?

The conference in the matter of pollution of the interstate waters of the Hudson River and its tributaries involving the Department of the Interior, the States of New York and New Jersey, and the Interstate Sanitation Commission, met on September 20 and 21, 1967, with the conferees unanimously agreeing upon the following conclusions and recommendations.

I am happy to report that we have maintained our record of unanimity. Considering the diverse interests of

New York, New Jersey, the Interstate Commission and the Federal Government, I think there is something to be said for this.

Here are the conclusions and recommendations:

1. Pollution of the interstate waters of the Hudson River and its tributaries is occurring due to the discharge of inadequately treated municipal and industrial wastes.
2. Considerable progress has been made toward abating this pollution problem and the programs under way, when carried to their logical conclusion, will abate and control this pollution.
3. All wastes prior to discharge into the waters covered by the conference (a) shall be treated to provide a minimum of 80 percent reduction of biochemical oxygen demand at all times. It is recognized that this will require a design for an average removal of 90 percent of biochemical oxygen demand. Or (b) shall be treated, as approved by the State Water Pollution Control Agency, to the degree necessary to meet the water quality standards approved by the Secretary of the Interior under the Water Quality Act of 1965.
4. All the waters covered by the conference shall receive effective disinfection of the effluents as required to protect water uses.

5. The conferees accept the schedule that all remedial facilities be placed in operation by 1972.

6. The State and interstate conferees agree that recent actions in Congress make it appear that the fiscal year 1968 appropriations will be less than one-half the inadequate authorization of \$450 million. It is destructive of pollution control efforts to continue a system in which actual appropriations are far below statutory authorizations. It should be understood that congressionally authorized amounts constitute a serious moral obligation on which States and municipalities should be able to rely in planning their projects for water quality improvement. Unless congressional appropriations are reasonably consistent with the authorizations enacted by Congress, it is obviously impossible for any municipality to receive the 55 percent of construction cost in Federal aid clearly provided in the Clean Waters Restoration Act of 1966. If the Congress intends to fund projects at 55 percent, then increases in the existing authorizations, as well as increases in the appropriations, are needed.

7. Periodic progress meetings shall be called by the Chairman after consultation with the conferees.

This concludes the findings and recommendations of the conference.

Do any of the conferees have anything to say at

this point?

(No response.)

MR. STEIN: If not, I would like to thank you all for coming and staying with us.

I think this has been a very progressive conference and for the lower Hudson and the Raritan River we have mapped out what I hope will be the Federal-State-interstate program for the clean-up of these waters and the maintenance of the water quality for the maximum number of water uses. We have time schedules for its completion in the very early 1970's.

I think we have set up a realistic program, a program where you can watch the results. With public agencies, you can always check up.

We will be back from time to time to give you progress reports.

With that, we stand adjourned.

Thank you.

(Whereupon, at 11:35 a.m., the conference was adjourned.)

(The following was submitted after the close
of the record:)

STATEMENT TO BE MADE AT THE HUDSON RIVER ENFORCEMENT CONFERENCE,

RECONVENING SEPT. 20-21, 1967 - NEW YORK, N. Y.

New York Harbor Coliform Density Pollution Study

New York University

Alan H. Molof and Erick R. Gidlund

Over the past few decades it has been observed -- but never confirmed -- that coliform levels in the New York Harbor waters have increased. Concern by the Department of Public Works, City of New York, over the validity of these observations, as well as an attempt to explain this disturbing phenomena, resulted in a study, only recently completed, by the Water Resources Group, Department of Civil Engineering, at New York University. In an effort to disseminate this knowledge to others in the estuarine pollution area, the results of this study titled "New York Harbor Coliform Density Pollution Study" were presented jointly by New York University and the City of New York at the recently held National Symposium on Estuarine Pollution this past August in Palo Alto, California.

It is fortunate that the City of New York has collected harbor coliform data over these many years inasmuch

as these are the only long-term coliform data available for New York waters. Without these efforts, there would have been no continuous record and henceforth these observations on the coliform status of the New York Harbor waters would, by necessity remain unknown.

Employing data collected by the Department of Public Works for the periods 1946-1964, studies conducted at New York University indicate that the observed coliform rise is real, meaningful and significant. In addition, laboratory observations indicate that die-away rates for coliform bacteria in New York Harbor have remained essentially unchanged. These studies included a review of the interrelated physical, chemical and biological factors which might affect coliform bacteria in general as well as specifically related to New York Harbor waters. No single factor or cause can be implicated with any assurance as the direct cause of coliform increase.

Although it was found that all of the physical, chemical and biological factors will show some influence on coliform growth, the primary reason for the rise appears to originate outside the harbor waters per se. In general it appears that areas near sewage discharge points show the highest coliform densities. The coliform increases might be attributed to changes in coliform removal efficiency due to modifications in treatment plant processes and/or

modifications in the sewer system discharging to the treatment plants.

Although secondary reasons for a coliform rise might be attributed to the harbor waters proper, there is an obvious lack of basic information regarding the ecology of the harbor. In general, this question cannot be resolved until more definite information regarding ecological factors can be determined.

* * *

(The following was submitted by Mr. Metzler for inclusion in the record.)

The City of Rensselaer, in conjunction with the Town of East Greenbush, have completed a Comprehensive Sewerage Study. This Study provides several alternate projects for the local abatement of pollution of the Hudson River.

One of the alternates provides for the treatment of all wastes from the City of Rensselaer and the majority of the Town of East Greenbush by a single joint waste water treatment facility located in the City of Rensselaer.

Another alternate provides for the collection of all wastes at a common point in the City of Rensselaer and the pumping of these wastes across the Hudson River to the

proposed multi-municipal waste water treatment facility in the City of Albany.

All projects indicate that it would be advantageous to the City of Rensselaer and the Town of East Greenbush if industrial wastes were treated jointly with the domestic wastes.

It is the intent of the City of Rensselaer, after evaluation of the Study, in cooperation with its industries, to select the project which would be most advantageous to the participants and to progress the construction as rapidly as possible.

/s/ John H. Warden
Mayor
Rensselaer, N. Y.

* * *

(The following telegram was submitted for inclusion in the record.)

Honorable Stewart Udall
Care Paul Resnick
Care Conference on Hudson River
Statler Hilton Hotel, NYK

Call to your attention shocking reversal of H.R.C. in endorsing defacement of Hudson River by allowing refuse dump on Yonkers shoreline. This action by H.R.V.C. violates principles and goals of your Department. Suggest you review overwhelming testimony in opposition to project, as presented

at H.R.V.C. public hearing of September 7, 1967. Urge you take immediate action to restore and protect the Hudson Valley at Yonkers.

Respectfully yours

Edwin S. Shapiro
Alfred F. McAvoy
Stewart M. Ogilvy
Albert Levitt
Paul Skokan
Sara Dustin

* * *

(The following chart was presented by Mr.
DeFalco for inclusion in the record.)

Additional Data on Status of Abatement Programs of Federal Installations
Discharging into the Lower Hudson River

Installation	Agency	Pollution Abatement Status
Hudson River Reserve Fleet	Maritime Adm.	Installing a waste water treatment device aboard tugs and headquarters barge servicing the installation.
Naval Shipyard, Brooklyn	Navy	Eastern portion tied into New York system (to Newtown Creek Plant). Western portion tentatively scheduled to tie into Red Hook Plant of New York City system.
Medical Supply Agency	GSA	Scheduled to complete interceptor to New York City. No firm date available.
Watervliet Arsenal	Army	Scheduled to complete connection for sanitary wastes to city by August, 1968.
Throgs Neck Light Station	Coast Guard	Decision whether to automate will be made in the near future. No firm date available.
V.A. Hospital, Castle Point	V.A.	Expect construction to commence during 1968 Fiscal Year.
V.A. Hospital, Montrose	V.A.	Expect construction to commence during 1968 Fiscal Year.
Bayonne Supply Depot	Army	If negotiations with city are not more favorable, the depot will build its own secondary treatment plant. Final design should be completed during 1968 Fiscal Year. Construction should commence in 1969 Fiscal Year.
Quarantine Station Rosebank, S.I.	GSA	Firm dates for connections cannot be obtained from New York City. City is now considering revision of present plans because of recent severe storm.

(The following statement was submitted for inclusion in the record.)

STATEMENT OF THE HONORABLE JOHN G. DOW, M.C.

to the Water Pollution Conference

New York City, September 20 & 21

Mr. Chairman:

I appreciate the opportunity to submit a statement to this Conference. It is my feeling that more and more Members of Congress are interested in the general problems of pollution and its control which are being discussed here.

It is my earnest desire that they become concerned in expanding the water and sewer grant programs which mean so much to the control of water pollution. At the Conference in 1965 I stated that the Federal Government wasn't doing enough in this area. I have introduced two bills in this Session which are designed to help alleviate the problems.

The public is more aware each day of the dangers of pollution created by governmental inaction in our urban society. When the water can't be used for drinking or swimming, and even boat traffic is slowed because of debris, then all of us must address ourselves to the legacy of nonconcern which has been handed us.

The problem, as I see it, begins with treatment of

the raw sewage generated by our society. Proper treatment is the key because, unless the waste is treated, no solution will be found. I would like to take a little time to explain my two bills, H. R. 3645 and H. R. 3584, which will help in this goal.

The first bill, H. R. 3645, will increase the authorization for the 1968 fiscal year and subsequent years to \$500,000,000 annually. I arrived at this figure after being informed by the Department of Housing and Urban Development that the dollars applied for under the law providing for lateral sewers and basic water systems totaled 26 times the number of dollars appropriated for fiscal year 1967.

There is no magic in the figure of \$500 million annually. It seems to me a more generous figure than \$200 million yet not extravagant in these times when the Nation is tightening its belt. It recognizes that some of the applications for grants are not as needful as others and that some might properly be turned back. Below I will give you relevant figures:

Annual authorization, 1967 and 1968	\$200,000,000
Appropriation, 1967	100,000,000
Amount allotted HUD, 1967	90,000,000
Budget, 1968	165,000,000

Since the demand is running at the rate of 26 times the '67 appropriation, that would be 13 times the authorization in the legislation. It is not difficult to see from the above figures that the need flies in the face of the allotted monies. There is no justification for such a meager sum when there has been a demonstrated need in the expansion of water and sewer facilities.

A number of communities in my District are suffering painfully in their anti-pollution programs as a result of the small amount of money available in Federal grants for lateral sewers. This is also true of grants for basic water facilities which are allotted under the same housing legislation.

In addition, there is a possible legal device which I have introduced as an amendment to section 702 of HUD Act of 1965. It will relieve the present situation somewhat with what is known as "prepayment." It is the clause offered in my bill, H. R. 3584. It will authorize communities, with such State help as they can secure, to prepay the costs for needed facilities without losing eligibility for securing a later grant from the Secretary of HUD.

At the present time, a community may be able to commence part of a lateral sewer or water system with local or State funds. However, no Federal grant-in-aid will be forthcoming if a sewer facilities system is commenced before

approval from the Federal Government for Federal funding.

H. R. 3584 would make possible local or State initiative in speeding construction of the lateral sewer or water system in those communities where critical conditions are faced.

It would be necessary, of course, and this is provided in my bill, for the Secretary to approve the project, in advance of the construction, as meeting the requirements of the law in all other respects. At that time, the project, pre-paid by the community and/or the State, would be eligible to receive a Federal grant at a later date. However, my bill further states that this eligibility shall not "be construed to constitute a commitment or obligation of the United States."

The bill would apply to any construction initiated after December 31, 1966. It would, then, permit a community to start construction without jeopardizing chances of obtaining Federal assistance. Under present legislation there is a very definite delay built into the system since no construction can get under way before final approval.

The most effective way to clean up our Nation's rivers and streams is to provide adequate treatment for sewage. At the 1965 conference, I learned that New York City itself dumped a minimum of 500 million gallons of raw sewage into New York Harbor every day. 175 million gallons were said to be dumped by the west side of Manhattan into the Hudson.

Congress has begun to realize the importance of

sewage treatment. For its own military installations the House recently passed a \$35 million construction bill for sewage and water treatment. The bill is now in the Senate, which may cut it back somewhat.

This Conference is considering a progress report and a plan for action. I hope that my contribution has not been too one-sided. I feel very strongly that the Federal Government has not been doing its fair share in this area and certainly the present budgetary strain makes increased effort difficult. But we cannot wait around for better times and I am sure all those present at the Conference are in agreement.

If we now recognize the problems then we must join together to overcome them, for in this instance it takes the full cooperation of all levels of government, local, State and Federal. I hope that as a Congressman I can do something which will provide others the tools with which to work.

* * *

(The following was submitted for inclusion in the record.)

IRVING YOUNGER

ATTORNEY AT LAW

40 WASHINGTON SQUARE SOUTH

NEW YORK CITY 10003

Telephone 228-3080

September 21, 1967

Mr. Murray Stein
Assistant Commissioner-Enforcement
Federal Water Pollution Control
Administration

633 Indiana Avenue
Washington, D. C. 20242

Dear Mr. Stein:

Pursuant to a suggestion made by your Mr. Resnick today over the telephone, I enclose a statement on behalf of the Hudson River Fishermen's Association, which I ask to be included in the record of the hearings held yesterday and today at the Statler-Hilton Hotel in New York City.

Very truly yours,

/s/ Irving Younger

IY/cs

enc.

* * *

STATEMENT OF IRVING YOUNGER, ESQ., ON BEHALF
OF THE HUDSON RIVER FISHERMEN'S ASSOCIATION

Mr. Chairman, members of the Conference: My name is Irving Younger. I am an attorney and a director of the Hudson River Fishermen's Association (Post Office Box 725, Ossining, New York). The Association, a non-profit corporation organized in 1966 by a dozen fishermen and marine scientists in New York, now has more than 250 members. Its purposes, to quote from the charter of incorporation, are "to encourage rational use of the aquatic resources of the river and its tributaries . . . gather, study and disseminate information about the ecology of the Hudson watershed, particularly in regard to the life histories and needs of fishes; endeavor to protect the spawning and nursery grounds of desirable sports and commercial fishes; and assist in efforts to abate pollution."

Two years ago, the Secretary of Health, Education, and Welfare called a conference on pollution in the Hudson and its tributaries. Many statements were made. Now it is the turn of the Secretary of the Interior to call this Conference. Doubtless many more statements will be made. Gentlemen, haven't we had enough statements? Isn't it time for action? Let me describe our experience with pollution enforcement authorities.

A great deal of the pollution of the Hudson River and of New York harbor and adjacent waterways has been illegal under a Federal statute since June 29, 1888. Here is the law, the New York Harbor Act of 1888, as amended (Title 33, United

States Code, section 441):

"The placing, discharging, or depositing, by any process or in any manner, of refuse, dirt, ashes, cinders, mud, sand, dredgings, sludge, acid, or any other matters of any kind, other than that flowing from streets, sewers, and passing therefrom in a liquid state, in the waters of any harbor subject to sections 441-451b of this title (which includes New York harbor), within the limits which shall be prescribed by the Supervisor of the Harbor, is hereby strictly forbidden, and every such act is made a misdemeanor, and every person engaged in or who shall aid, abet, authorize or instigate a violation of this section, shall, upon conviction, be punishable by fine or imprisonment, or both, such fine to be not less than \$250 nor more than \$2,500, and the imprisonment to be not less than 30 days nor more than 1 year, either or both united, as the judge before whom conviction is obtained shall decide, one half of said fine to be paid to the person or persons giving information which shall lead to conviction of this misdemeanor."

This is a strong law. Try to get it enforced! If you did enforce it, in a month you would clean up much of the mess in the Hudson and the harbor.

Last winter, the Hudson River Fishermen's Association started trying to get this law enforced against polluters who were releasing acids and oils into the river. After much phoning around, a director of the Association tracked down the Federal Water Pollution Control office in charge of the Hudson and Lake Champlain. It happens to be in Metuchen, New Jersey, not exactly the best site from which to police the Hudson or Lake Champlain. The official who answered the phone said his office would be interested in having records of pollution violations. "Will you take action?" he was asked. He said, no, but he wanted the records for the office files so that when the next conference on the Hudson was called, he could take them out and show where there were problems. This is bureaucratic lunacy. His reason for not taking action was that the Federal Water Pollution Control office had not yet been assigned authority. What is the purpose of the authority if not to act, if not to enforce Federal law?

Despite this, the Association persevered. The same director called the Harbor Supervision Branch of the Corps of Engineers' office in Jersey City. The Corps investigators said they would act. One of the offenders reported was the New York Central Diesel and Electric Shops at Harmon. For years, the Central has discharged oil wastes directly into the Hudson from a mammoth pipe that thrusts its backside into the water near the mouth of the Croton River. Oil discharges in

this area have been so heavy that ducks have drowned and fish are inedible. Two years ago, at the time of the first conference on Hudson pollution, there was an oil slick three or four miles long and a half to a mile wide.

After reporting the Central to the Corps, the Association heard nothing. Finally, we inquired and were told that the Central had been "cited" and given until mid-March to stop. Early in May, a director of the Association checked the area, and there was an oil slick all over the area. Another complaint was made. Again we heard nothing. This summer, a director of the Association visited Corps headquarters in Manhattan. When he asked why the Federal law was not enforced and polluters punished for violations, a Corps official said, "We're dealing with top officials in industry, and you just don't go around treating these people like that."

The Hudson River Fishermen's Association, however, is persevering. It has had pre-paid postcards printed noting the 1888 law. These cards are being distributed free to the public. There are blanks where a fisherman can note the who, what, when, and where of suspected violations, and on the card is the shameful notice, "The government agencies have not done their job protecting the river -- NOW IT'S UP TO YOU."

We hope that this Conference will take steps towards assuring effective enforcement of what Congress mandated 79 years ago.

REPORT OF PHONE CALLIn X Out File 35.18Date 2/1/67 Time Routing Hohman

 Person Contacted Robert BoylePhone No. (914) CR1-8242Location Finney Farm, Croton-On-Hudson, N.Y. 10520Subject of Call Oil pollution in Hudson River at Croton Point

Summary of Call Mr. Boyle is associated with "Sports Illustrated" and
a member of the Hudson River Fisherman's Association. He was referred to
us by Murray Stein.

The N.Y. Central R.R. diesel yards at Harmon discharge oil to the river
through an outfall on the south side of Croton Point. (Listed on p. 122
of the S.H.D. Report #9 on the Lower Hudson River)

Previous complaints to ISC and NYSHD have produced no results.

---Phoned Major Ulrich - He will check it out.

---Ulrich phoned back - C/E has been involved since July 1966.

N.Y. Central is fabricating units to correct problem. Will follow
through to correction.

---Phoned Boyle to advise of C/E action.

Action Required None

K. H. Walker
Signature

(The following was submitted for inclusion in the record.)

NANSL

24 October 1967

Mr. Dwight F. Metzler
Deputy Commissioner, Department of Health
State of New York
Albany, New York 12208

Dear Mr. Metzler:

This letter is in reply to your recent inquiry requesting supplemental information on certain District activities for inclusion in the record of the conference on pollution of the Hudson River and its tributaries, held in New York City on 20 September 1967.

Inclosure 1 contains data on selection and utilization of Atlantic Ocean disposal areas, and the issuance of dumping permits. Statistics on investigations conducted in the conference area (Hudson River from Troy, N. Y. through the upper bay of New York Harbor) and other than the conference area are listed in Inclosure 2.

Sincerely yours,

2 Incl

as

R. T. BATSON

Colonel, Corps of Engineers

District Engineer

Copy furnished, w/incl:

OCE, ENGCW-ON

NAD, NADCO

Mr. Murray Stein

* * *

Supplemental Statement by Colonel R. T. Batson
for Inclusion in the Record of the Conference
on Pollution of the Hudson River and its
Tributaries in New York City on 20 September 1967.

Disposal areas for the disposal of waste materials in navigable waters in the New York area are established by the District Engineer in his dual capacity as Supervisor of New York Harbor, pursuant to the provisions of Section 1 of the Act of Congress approved 29 June 1888 (33 U.S.C. 441).

There are three major localities in which disposal areas have been established: the Atlantic Ocean off the entrance to New York Harbor, Long Island Sound and Hudson River. The areas which have been established in Atlantic Ocean provide for the disposal of mud, cellar dirt, stone, wrecks, sewer sludge, waste acid, chemicals and radio-active wastes. The areas in Long Island Sound provide for the disposal of dredged materials,

although occasionally they are utilized for the disposal of clean cellar dirt and wrecks. The areas in Hudson River have been established between Peekskill and Kingston, New York, and have been used exclusively for the deposit of material dredged from the channels and harbors along Hudson River, north of Hastings-on-Hudson, New York.

The principal criteria in the selection of the disposal areas is to assure that their use would not be detrimental to navigation. The sewage sludge dumping ground in Atlantic Ocean which has been in use since 1924, was also selected so as to avoid offensive discoloration and solids washing up on the beaches. The waste acid dump which has been in use since 1948 was selected to avoid possible damage and discoloration on the beaches. The offshore chemical disposal area was selected to avoid possible adverse effect on food fish and public health.

Before the sewage sludge site was designated, its selection was discussed with State Conservation and Health Departments. The waste acid disposal area was established only after it was discussed in detail with the Interstate Sanitation Commission, the New Jersey State Department of Conservation, Health, and Fish and Game, the New York State Departments of Conservation and Health, the Commercial and Sport Fishing Bureau of the Fish and Wildlife Service, U. S. Department of the

Interior, the Food and Drugs Administration of the U. S. Department of Health and the Atlantic States Marine Fisheries Commission.

With the recent closure by health authorities of upland disposal sites to toxic chemicals and metallic wastes because of possible infiltration into potable water supplies, industry has been seeking approval to dispose of these wastes into the ocean. Each request for such approval is carefully reviewed and before making a final decision the views of State and Federal agencies and departments are secured, including the New Jersey and New York State Departments of Conservation and Health Service, the U. S. Fish and Wildlife Service and the Federal Water Pollution Control Administration.

If it is determined that the wastes are innocuous, approval is granted to dispose of them about 16 miles offshore in the Waste Acid Dump and if they are toxic, approval is granted for their disposal about 120 miles southeast of New York in the Chemical Dumping Ground.

To assure that the waste materials are disposed of in the approved dumping grounds, permits are issued for the vessels transporting the materials to move over the waters of New York Harbor and its adjacent and tributary waters to the designated place of disposal. Inspections are made by use of patrol boats patrolling the dumping areas being used regularly and by inspectors riding the vessels transporting the materials

on individual trips or occasions. In addition, the vessel operators are required to return the permits with the certification of the master of the vessel as to the action taken in dumping the material.

* * *

STATEMENT OF ACTIVITIES

Project Name: Supervision of New York Harbor

Fiscal Year	1963	1964	1965	1966	1967
a. Total Case Investigations:	* 527	* 664	* 878	* 1,349	* 1,363
Initial Inv.	(-)	(-)	(535)	(744)	(758)
Supplemental Inv.	(-)	(-)	(343)	(605)	(605)
(1) Conference Area					
On-shore	-	-	317	398	438
Off-shore	-	-	38	75	97
(2) Other Than Conference Area					
On-shore	-	-	165	236	203
Off-shore	-	-	15	35	20
b. Disposition of Investigations:					
(1) Total Warning Letters Issued (Violations Corrected)	358	478	295	446	305
(2) Total Unfounded Cases	83	104	153	110	146
(3) Cases Closed Administratively, e.g., Unknown Subject	-	-	-	90	183
(4) Total Cases Forwarded to U.S. Attorneys	86	82	87	98	124
(a) Prosecution Declined	23	25	29	19	33
(b) Total Fines Collected	\$12,535	\$18,350	\$45,650	\$27,100	\$48,383
c. Funds Expended by Violators to Correct Violations	-	-	\$1,303,800	\$1,545,700	\$2,027,300

NOTES:

- *Totals are composites of initial investigations and supplemental reports on initial investigations.
- Hudson River from Troy, N. Y. through upper bay of New York Harbor.
- Dashes indicate statistics not available.

LEAGUE OF WOMEN VOTERS OF NEW YORK STATE

131 East 23rd Street, New York, N. Y. 10010

212 ORegon 7-5050

Mrs. George J. Ames, President

September 28, 1967

Mr. Murray Stein

Assistant Commissioner - Enforcement

Federal Water Pollution Control Administration

Washington, D. C.

Dear Mr. Stein:

Mr. Resnick indicated at the close of the Hudson River enforcement conference last week that I might submit a written statement on behalf of the League of Women Voters of New York State for inclusion in the conference record. As I listened to the conference statements and realized that no citizens' group spoke, I recognized that it might indeed be useful to the conferees to hear the views of one citizens group. In the two year period since the original conference, local Leagues in New York State have continued their work in the field of water resources and the enclosed statement is based on their studies.

Sincerely,

/s/

Mrs. Edward M. Davis

Chairman, Water Resources

copy to:

Mr. Paul Resnick

Federal Water Pollution Control Administration

Metuchen, New Jersey

* * *

League of Women Voters of New York State

131 East 23rd Street, New York, N. Y. 10010

September 28, 1967

STATEMENT ON HUDSON RIVER POLLUTION CONFERENCE

At the original conference dealing with pollution of the Hudson (Sept. 1965), spokesmen for 10 citizens groups presented their organization's views. It is significant that no citizens group was heard from at the recent conference held to review progress in pollution abatement. Perhaps this indicates that most groups feel real progress is being made; perhaps it only indicates that the immediate crisis, the drought of the past 5 years, is at an end.

In the interim between the conferences of 1965 and 1967 the League of Women Voters of New York State has continued its interest in and study of water resources including those of the Hudson River Basin. Since the passage of New York's

"Pure Waters" bond issue in 1965, local Leagues in New York have urged their own communities to utilize the funds provided by this bond issue and to begin needed pollution abatement programs.

In addition, local Leagues in the Hudson-Mohawk basin undertook last year a study of that basin's water resources. A questionnaire sent out last spring, as part of this study, elicited several responses that may be pertinent to this conference:

1) In almost all communities, Leagues indicate that there are new plans for use of the waterfront for recreation or residences. This indicates a very real faith that we will indeed be able to clean up our waters.

2) At the same time many Leagues expressed concern that we are not meeting the time schedule as set up by New York State, and several comments indicate that the 1972 deadline for pollution abatement is unrealistic, considering progress made to date.

3) Leagues in the Hudson Basin continue to find a general lack of cooperation and coordination between various levels of government. While there are some notable exceptions, cooperation, especially horizontal cooperation between local units of government, is less than might be hoped for.

4) Most Leagues indicate that public interest in the "Pure Waters" programs has abated considerably in the past two years. Often local Leagues find they are nearly alone in their communities in continuing their surveillance of the progress in pollution abatement.

In essence, what local Leagues in the Hudson Basin have indicated is that there has been progress made toward pollution abatement but that much remains to be done and that citizens' groups such as the League must continue their interest in this area in order to accomplish the goals that have been established.

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