

# INCODEL

THE INTERSTATE COMMISSION  
ON  
THE DELAWARE RIVER BASIN  
A Decade of Planned Progress  
1936-1946

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## FOREWORD

TEN years in the life of a governmental agency is— or should be—a conclusive period. Either the agency proves itself in practical terms of value and utility, or it is found wanting for one reason or another.

The Interstate Commission on the Delaware River Basin is this year completing a decade of work as a joint governmental agency of the States of Delaware, New Jersey, New York, and Pennsylvania.

It invites your attention to this brief summary of its activity and accomplishment.

## INTERSTATE COOPERATION

**T**HE story of Incodel is a story of interstate cooperation. This project, begun in 1936, was designed as a demonstration of the willingness and the capacity of a group of state governments to work together toward a solution of problems extending beyond the boundaries of a single state.

This experiment in intergovernmental relations was undertaken and has been conducted largely without the benefits of precedents, wholly without the benevolence of great appropriations of public funds, and, simply, without substantial grants of political power and authority.

Voluntary cooperation has been its only tool. It has endeavored to supplement, not supplant, those agencies of the four state governments in this region which have been charged with the responsibility for state administration of land and water resources programs. It has tried to broaden their scope, to blend their efforts into a unified plan and program for the conservation and development of the natural resources of the interstate Delaware River Basin.

Important beginnings have been made.

Important results have been achieved.

## WATER POLLUTION

*The causes and effects of water pollution are regional in scope and include a wide variety of interests and communities. No single locality, no single state, can adopt the means of public control necessary to put and maintain the waters of the Delaware River Basin in a clean and sanitary condition. It is an interstate problem on an interstate stream.*

**The Problem  
in 1936**

**O**UTSTANDING among achievements in water pollution control in the Delaware River Basin during the past ten years has been the preparation and official adoption of an interstate agreement for the correction and control of pollution in the waters of the interstate Delaware River.

**The Action  
by 1946**

This Reciprocal Agreement, drafted and negotiated by Incodel, establishes basic standards of cleanliness or purity for the main stream and for its tributaries at their points of confluence. In addition to the pledge of administrative cooperation by each State Department of Health, the provisions of the agreement have been enacted into law in each of the four states of the Basin.

For the first time, the States of Delaware, New Jersey, New York, and Pennsylvania—through their appropriate administrative departments—have agreed to act in unison toward the common end of abating and preventing excessive pollution in the interstate Delaware River and its tributaries.

Since the adoption of this interstate plan, forty-seven Pennsylvania and New Jersey communities have spent more than 10 million dollars building sewage collection and treatment facilities. The facing cities of Philadelphia, Pennsylvania, and Camden, New Jersey, contributors to the most grossly polluted water area in the nation, have completed engineering surveys and plans for projects placed first on their priority programs for postwar construction. Port Jervis, New York, trouble-spot of the upper Delaware Valley, is set to build sewage treatment facilities, with the required assistance of New York City, as decreed in the Delaware River Case.

## WATER SUPPLY

*For twenty years the States of New York, New Jersey, and Pennsylvania have been at odds over their right to draw upon the flows of the Delaware River Basin for public water supplies. Two extensive efforts toward arriving at an agreement as to how these waters could be divided and allocated among the states were made, in 1925 and 1927. Both failed. Subsequently, two years of litigation, at a cost to the states of well over a million dollars, provided only a partial answer to one phase of the problem when, in 1932, the United States Supreme Court authorized a diversion of Delaware River waters for use in New York City under a specified set of conditions. Future needs in the three states faced the same entangled and costly procedure. These needs were growing.*

**The Problem  
in 1936**

**T**HE states, through Incodel, approached this problem jointly, not independently; cooperatively, not competitively. Starting with the principle of "equitable division," established in the Delaware River Case, the states first undertook a study adapting the rules established by the Supreme Court to other water supply projects, proposed or assumed. After more than three years of careful co-operative study and analysis, the states arrived at an agreement as to the conditions under which any state, at any time, can take the water it needs from the Delaware River Basin for public water supply purposes. This agreement was then incorporated into a concurrent legislative bill, now a law in each of the participating states.

**The Action  
by 1946**

This method of providing for the future diversion of Delaware River Basin waters, drafted and negotiated by Incodel, constitutes a new and pioneering procedure for the distribution of interstate waters.

The statutory interstate agreement, now in effect among the states, will make it possible for the states to avoid controversy. Public water projects may be undertaken as public necessity demands, without conflict, without economic loss, and without the tremendous cost of legal controversy.

## WATER CONSERVATION (A War Emergency Activity)

*The five Pennsylvania counties in the Philadelphia Metropolitan District comprised an important nerve center in the nation's network of industrial war production. Planes, tanks, jeeps, guns, ships, and shells—these and thousands of other materials and instruments of war—were manufactured in this District.*

### **The Problem in 1942**

*These war industries required a tremendous supply of water in their manufacturing processes.*

*Public and private water systems operating in this District had a combined maximum capacity of 460 million gallons of water a day. The combined domestic and industrial demand for water, in the summer of 1942, was estimated at 500 million gallons a day.*

*A breakdown in the water supply systems of the area was threatened.*

**U**PON the request of the Philadelphia Metropolitan District Council of Defense, strengthened by the appeals of the major water companies, Incodel undertook the organization and administration of an extensive water conservation campaign in the five-county district.

### **The Action in 1942**

Five hundred thousand printed leaflets, pointing out several specific ways of avoiding waste, were distributed house-to-house by Air Raid Wardens; more than a hundred thousand poster displays and window cards were placed through the District; a series of fourteen radio addresses and round-table discussions on Water and the War in the Philadelphia Metropolitan District was presented; full newspaper coverage was secured.

The results: the voluntary adoption and practice of water conservation measures throughout the District reduced daily demands upon the systems by more than 30 million gallons. Under war emergency conditions the increased industrial usage and heightened home consumption would have raised daily demands upon the system by more than 40 million gallons.

# SCHUYLKILL RIVER RESTORATION

*The Schuylkill River and its tributaries are an important segment of the Delaware River system. For more than a century these streams have been the depository for wastes resulting from the operation of collieries in the coal fields, more than 30 million tons of coal culm line the bed and the banks of the river.*

**The Problem  
in 1936**

*Increasingly serious damage has accrued over the years by the silting of channels, water works intakes, and sewage treatment plant outfalls. Flood heights have been raised by this clogging of the stream. The navigable channel of the lower Schuylkill River has needed constant dredging, at an annual cost of almost a half-million dollars. Recreational facilities along the river have been destroyed, and property values substantially reduced.*

**C**ONVINCED that sufficient facts on the Schuylkill problem had been accumulated over the years, the Interstate Commission on the Delaware River Basin set out in 1943 to develop a coordinated plan for restoring the Schuylkill through suggesting the assignment of specific responsibilities to the Federal Government, the Commonwealth of Pennsylvania, and the anthracite coal industry.

**The Action  
by 1946**

Responsibility for dredging operations was divided between the Federal Government and the Commonwealth of Pennsylvania; the coal operators were charged with the installation of works to prevent further deposits in the stream; a desilting basin project to provide additional protection in the stream was assigned for construction by Pennsylvania. Cost allocations indicate that the 34 million dollar estimated total will be borne in the following proportions: coal operators, \$6,000,000; Commonwealth of Pennsylvania, \$15,000,000; the Federal Government, \$13,000,000. This project is now under way.

For the first time during the many years of discussion of this problem, a definite action program has been developed and accepted by the responsible agencies, both public and private.

## FLOOD CONTROL AND NAVIGATION

*Primary responsibility for navigation projects in river basins throughout the nation rests with the Federal Government. The interests of the states were restricted to an analysis of the effect of federal proposals on the utilization and control of land and water resources as a whole. In 1936, the United States War Department—through the Army Engineers—was proceeding with its program of surveying river basin areas and recommending improvements for navigation and protection from floods to the Rivers and Harbors and Flood Control Committees of the Congress. The problem was one of intergovernmental relationships: how to protect the interests of the states in the preparation and official adoption of federal programs? (See Federal-State Relations: Section 8.)*

**The Problem  
in 1936**

**H**AVING resolved the basic difficulty by specific amendment to the 1944 Federal Flood Control Act and to the 1945 Federal River and Harbor Act, the states and the federal agencies are now working cooperatively on flood control and navigation programs.

**The Action  
by 1946**

Incodel lends its assistance to the states in support of such urgently needed flood control projects as have been proposed for the Lackawaxen and Lehigh Rivers in Pennsylvania, recently authorized by the Congress.

The Schuylkill River Restoration Project (see Section 5) is a prime example of a navigation project, to be cooperatively financed, which will have benefits far and beyond its immediate objective.

A proposed New Jersey Ship Canal was put before the Congress in 1943 for immediate and emergency authorization. Incodel undertook a special survey of this proposal because of its possible effects upon the quality of the water of the Delaware River below Trenton. It continues to maintain that the use of Delaware River waters for public water supplies is paramount and that construction of the ship canal across New Jersey, as proposed, might seriously jeopardize that use.

## SOIL CONSERVATION AND FORESTATION

*In the Delaware River Basin, millions of tons of top soil have been washed from agricultural lands into streams. While depleting the productivity of farms, this erosion clogs the waterways with earth and silt and has caused the additional loss of low-lying lands because of the resultant poor drainage. On the average, more than fifty per cent of the growth-producing cover of agricultural areas in the Basin has been washed away, and a substantial proportion of land, formerly used for farming, is almost beyond redemption.*

**The Problem  
in 1936**

*Closely coupled with erosion is the problem of the Basin's woodlands. Ruthless cutting of the forests and the destruction of the ground cover and humus layer have developed conditions unfavorable to tree growth—one of nature's most effective flood control and stream flow regulation measures.*

**G**OVERNMENTAL agencies, state and federal, have investigated these conditions and have developed corrective measures which would restore most lands to their proper use and productivity. Private organizations, too, have done splendid work in educating the farmer to the wisdom of sound soil conservation practices.

**The Action  
by 1946**

Soil conservation districts have been authorized by each of the state legislatures in the Basin with powers to provide assistance to the farmers.

Public control of cutting on private forest lands has been urged but not enacted.

IncodeI is prepared to direct a major portion of its attention to developing a unified program—federal, state, and local—on the problems of soil conservation and the development of forest resources. It proposes to follow its established pattern of seeking the voluntary cooperation of all interested agencies, both public and private, in the development of a practical program of action during the year 1946-1947.

## FEDERAL-STATE RELATIONS

*Federal jurisdiction and control over the interstate water resources of the nation was well under way in 1936. With the Tennessee Valley Authority as the impetus, the control of interstate river systems was being looked upon more and more as a federal function, to be directed by federal appointees, to be paid for with federal funds. In 1938 the Congress arbitrarily removed the states from participation in flood control matters. In 1941 decisions of the United States Supreme Court, in the New River and the Red River Cases, informally amended the Commerce Clause of the Constitution by holding that a river need not be navigable in fact to be navigable in law. Thus every stream is clothed with a federal interest and susceptible of development by federal agencies. Congressional legislation to blanket the nation with federal regional authorities was pending.*

**The Problem  
in 1936**

**A**s a joint governmental agency of the states, Incodel opposed the federal proposal to compartment the nation into regional areas for "Authority" development; it counseled caution to a general acceptance of the Authority device by suggesting that the states, generally, back up their "rights" to land and water resources control by a demonstration of their "competence."

**The Action  
by 1946**

In cooperation with other state water resources agencies, Incodel took a position of leadership in diverting the trend of Congressional-Judicial moves toward federal centralization. The 1944 River and Harbor Bill was pending in the Congress and the 1945 Flood Control Bill was in an early stage of preparation. The states took their stand on an amendment to these bills, and that stand met with success. The amendment, now law, declares a policy on the part of Congress to recognize and protect states' interests, their rights and responsibilities in the development of rivers and their watersheds; all future navigation and flood control projects must be submitted for authorization to the Congress, only after cooperative federal-state investigation.

## STATE-LOCAL RELATIONS

*Accomplishment of Incodel's first major objectives in the fields of water pollution control and water supply distribution requires cooperation from municipalities, from private industries, and from individual citizens. These state-local relationships were severely handicapped in 1936 by a lack of coordination and cooperation among the states. Compulsive anti-stream pollution action against municipalities along one side of the stream was not feasible, rigid enforcement of stream purification laws among private industries was unreasonable as long as the public's problem was prevalent. Similarly, future water supply needs by local public and private developing agencies in the states suffered from a lack of synchronized planning.*

**The Problem  
in 1936**

**W**ITH the crystallization of interstate agreements on the water pollution and water supply problems of the Delaware River Basin, state-local relations have perceptibly improved. Uniform standards are now applied to the municipalities and industries of the Basin, irrespective of geographical location. In addition, the states—through Incodel—have agreed upon a coordinated program of domestic and industrial treatment plant construction.

**The Action  
by 1946**

To assist state and municipal government officials in making this program effective, Incodel has continuously encouraged communities to accept their responsibilities through a direct public relations program; it has supported state enforcement through court actions, as in the legal action brought by the State of New Jersey against the Cities of Camden and Gloucester, in New Jersey; it has appeared and submitted legal briefs "as a friend of the court" in test cases involving the validity of the Pennsylvania Municipal Authorities Act and the Philadelphia sewer rental ordinances.

In the pending New York City-Delaware River water supply project, now nearing completion, and the proposals for a new source of water supply for the City of Philadelphia, Incodel has served as an active and effective liaison agent, harmonizing interstate policy and strengthening state-local relations.

## MISCELLANEOUS ACTIVITIES

*Incodel's plans for the development of an orderly land and water resources control program in the Delaware River Basin involved, from the beginning, a broad concept of the inter-relationships of water pollution, water supply, soil conservation, forestation, recreation, flood control, navigation, and other land and water uses and abuses. While major attention and effort have been given to a solution of those specific problems which were of regional importance, which were most urgently needed, and which would be immediately useful, many allied studies were carried along concurrently. A sampling of the scope and variety of this activity is indicated below.*

**The Problems  
in 1936**

**R**ECREATION: The potentially tremendous recreational area in the Upper Delaware Valley has been subjected to special study by Incodel. A carefully drafted program of planned development (as opposed to exploitation) was prepared and has been locally sponsored.

**The Action  
by 1946**

**SALINITY IN THE DELAWARE:** During summer periods of low-flow in the Delaware, the salt content of the water in the tidal section of the river below Philadelphia impairs the quality of the water and damages industrial equipment. Incodel has investigated several alternative proposals and, in cooperation with the industries in the affected area, it has found a practical solution.

**MULTIPLE PURPOSE RESERVOIRS:** An exhaustive investigation of a proposal to construct a large dam and reservoir in the Delaware River Basin led Incodel to conclude: (1) the "highest use" of the waters of the Delaware watershed is for public water supply and this use has precedence over all others; (2) the development of the Delaware for hydro-electric power *alone* would not be economically attractive; and (3) while power developments *might* be combined advantageously, under public control, with a joint water supply project for Philadelphia and northeastern New Jersey, there appears to be no need for such a joint supply, and the advisability of its development is questionable.

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HON. M. P. CATHERWOOD  
*Vice Chairman*

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HON. GEORGE P. EDMONDS  
*Member of the Senate*

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## A ROSTER OF COMMISSIONERS

1936-1946

### Delaware

R. C. Beckett	1936-	W. B. McKendrick	1943-
Charles H. Gant	1936-1941	Henry M. Canby	1939-1941
Burton S. Heal	1941-	John M. Conway	1941-1943
Chauncey P. Holcomb	1936-1939	Harold W. J. Purnell	1939-1941
George R. Clark	1943-	Norris N. Wright	1937-1939
George P. Edmonds	1943-	Walter Dent Smith	1936-1937

### New Jersey

Robert C. Hendrickson	1936-	Crawford Jamieson	1936-1938
Joseph C. Paul	1936-	John G. Sholl	1943-1945
Charles P. Messick	1936-1945	Harry Roye	1937-1938
Mary G. Roebling	1938-1942	William T. Vanderlipp	1945-
Duane E. Minard, Jr.	1943-		

### New York

Martin P. Catherwood	1939-	Earle S. Warner	1941-1943
Mario J. Cariello	1938-1943	Julius S. Berg	1936-1938
John S. Thompson	1941-	Benjamin F. Feinberg	1939-1941
Emerson D. Fite	1938-1941	Rae L. Egbert	1938-1939
George W. Foy	1943-	Maurice A. Fitz Gerald	1937-1938
Nathaniel L. Goldstein	1943-	Robert Whitten	1936-1937
Wayne D. Heydecker	1937-1939		

### Pennsylvania

Ellwood J. Turner	1936-	Richard P. Brown	1939-1941
F. A. Pitkin	1936-	Thomas A. Logue	1936-1938
Weldon B. Heyburn	1939-	Mark S. James	1941-1943
Franklin H. Lichtenwalter	1943-	George A. Rupp	1936-1938
Floyd Chalfant	1943-	Robert Lee Jacobs	1938-1939

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## STATE-INTERSTATE LAWS

### Interstate Cooperation

*An Act to Facilitate the Cooperation of This State with Other Units of Government and to Establish an Unpaid Commission for That Purpose . . .*

DELAWARE.....	Chapter 202, Laws of 1939
NEW JERSEY.....	Chapter 21, P.L. 1936
NEW YORK.....	Annual Concurrent Resolutions
PENNSYLVANIA.....	Act No. 35, Laws of 1937

### Interstate Water Pollution

*An Act to Promote Interstate Cooperation for the Conservation and Protection of Water Resources in the Delaware River Basin . . .*

DELAWARE.....	Chapter 93, Laws of 1944
NEW JERSEY.....	Chapter 146, P.L. 1939
NEW YORK.....	Chapter 600, Laws of 1939
PENNSYLVANIA.....	Act No. 123, Laws of 1945

### Interstate Water Supply

*An Act to Promote Interstate Cooperation for the Conservation, Protection, and Equitable Diversion of the Water Resources in the Delaware River Basin . . .*

NEW JERSEY.....	Chapter 124, P.L. 1944
NEW YORK.....	Chapter 709, Laws of 1943
PENNSYLVANIA.....	Act No. 193, Laws of 1943

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## SELECTIVE PUBLICATIONS

**WATER POLLUTION.** *First printing of the Interstate Agreement for the conservation and protection of water resources. Contains introductory sections on general problems of land and water use: 19 pp., tables, maps, charts, November, 1938.*

**MUNICIPAL AUTHORITIES.** *Reprints the Incodel legal-economic brief in support of the Pennsylvania Municipal Authorities Act and includes the Pennsylvania Supreme Court's decision upholding the validity of that Act: 22 pp., January, 1939.*

**THE PHILADELPHIA POLLUTION PROBLEM.** *A series of mimeographed reports and analyses of the Basin's major problem area, 1938-1946.*

**THE UPPER VALLEY.** *Outlines a conservation and development program for the states, counties, municipalities, and citizens: 20 pp., illustrated, map, chart, March, 1939.*

**PLANNED PROGRESS IN POLLUTION CONTROL.** *Covers three years of planned progress, 1936-1939, toward the restoration and maintenance of the quality of water in the Delaware River Basin: 20 pp., illustrated, maps, tables, charts, January, 1940.*

**PHYSICAL FACTS.** *A graphic compendium, depicting some of the major physical facts with which the state governments are concerned in facing land and water resources problems in the Delaware River Basin: loose-leaf format, maps, charts, graphs, tables, commentary, January, 1940.*

**WATER SUPPLY.** *A series of mimeographed chronologies of water supply problems, surveys and reports on specific projects, abstracts of the Delaware River Case, salinity studies, the New Jersey Ship Canal, technical reports on background material, tests, and formulae leading to Delaware River Basin Water Supply Acts: 1936-1946.*

## OFFICIAL DOCUMENTS

**ANNUAL REPORTS.** *Summaries of activities and accomplishments for the fiscal years 1936-1946, printed, illustrated, tables, maps, charts. Mimeographed reports for the years 1936-41.*

*Legislative Acts authorizing the creation of Incodel, Articles of Organization, Reciprocal State-Interstate Laws on stream pollution and water supply: cumulative, 1936-1946.*