

OHIO RIVER VALLEY WATER SANITATION COMMISSION

1993



Members of the Commission *

Illinois

Richard S. Engelbrecht, Ph.D, Professor of Environmental Engineering, University of Illinois
Mary A. Gade, Director, Illinois Environmental Protection Agency
Phillip C. Morgan, Director, Danville Sanitary District

Indiana

Joseph H. Harrison, Sr., Bowers, Harrison, Kent & Miller
Albert R. Kendrick, Jr., President, Kendrick's Collectibles
Kathy Prosser, Commissioner, Department of Environmental Management

Kentucky

Phillip J. Shepherd, Secretary, Natural Resources & Environmental Protection Cabinet
Gordon R. Garner, Executive Director, Louisville & Jefferson County Metropolitan Sewer District
Ed Logsdon, Commissioner, Department of Agriculture

New York

Douglas E. Conroe, Vice President for Administrative and Community Services, Chautauqua Institution
Thomas A. Erlandson, Ph.D., Professor of Biology & Geology, Jamestown Community College
Thomas C. Jorling, Commissioner, Department of Environmental Conservation

Ohio

Lloyd N. Clausing
Richard A. Miller
Donald R. Schregardus, Director, Ohio Environmental Protection Agency

Pennsylvania

Arthur A. Davis, Secretary, Department of Environmental Resources
Melvin E. Hook, R&D Engineering P.C.
William M. Kudaroski, Operations Manager/Production, Pennsylvania-American Water Company

Virginia

Patrick L. Standing, State Water Control Board
W. Bidgood Wall, Jr., State Water Control Board
Robert C. Wininger, State Water Control Board

West Virginia

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Ronald R. Potesta, President, Terradon Corporation
William T. Wallace, M.D., M.P.H., Commissioner, Bureau of Public Health

United States

Valdas V. Adamkus, Regional Administrator, U.S. Environmental Protection Agency, Region V
Jean M. Barren

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Ronald R. Potesta, Vice Chairman
Thomas A. Erlandson, Secretary
Richard L. Herd, Jr., Treasurer
Alan H. Vicory, Jr., Executive Director and Chief Engineer

Legal Counsel

Thomas D. Heekin, Taft, Stettinius & Hollister

* As of December 31, 1993

*Cover photo by Bill Abrams
ORSANCO's new headquarters
dedicated May 13, 1993.*

TO:

The Honorable Jim Edgar, *Governor of Illinois*

The Honorable Evan Bayh, *Governor of Indiana*

The Honorable Brereton C. Jones, *Governor of Kentucky*

The Honorable Mario M. Cuomo, *Governor of New York*

The Honorable George V. Voinovich, *Governor of Ohio*

The Honorable Robert P. Casey, *Governor of Pennsylvania*

The Honorable George Allen, *Governor of Virginia*

The Honorable W. Gaston Caperton III, *Governor of West Virginia*
and

The Honorable William J. Clinton, *President of the United States*

The Commissioners of the Ohio River Valley Water Sanitation Commission (ORSANCO) -- an interstate water pollution control commission created jointly in 1948 by the State of Illinois, the State of Indiana, the Commonwealth of Kentucky, the State of New York, the State of Ohio, the Commonwealth of Pennsylvania, the Commonwealth of Virginia, and the State of West Virginia, with the approval of the Congress of the United States -- respectfully submit the following report of the Commission's activities in 1993.



ORSANCO is headquartered at 5735 Kellogg Avenue, Cincinnati, Ohio 45228 (513)231-7719.

New Challenges

The beauty of the Ohio River begins in Pittsburgh, with the convergence of the Allegheny and Monongahela Rivers. As it flows in a generally southwest direction, each twist and bend in this grand waterway offers a glimpse into a diverse economic and cultural area. It passes centers of industrial prosperity, large metropolitan areas, quiet pastoral communities and fertile agricultural land before reaching Cairo, Illinois, where it joins the Mississippi River. As ORSANCO completes its forty-fifth year, we reflect on each twist and bend of the river and look ahead to new and challenging issues.

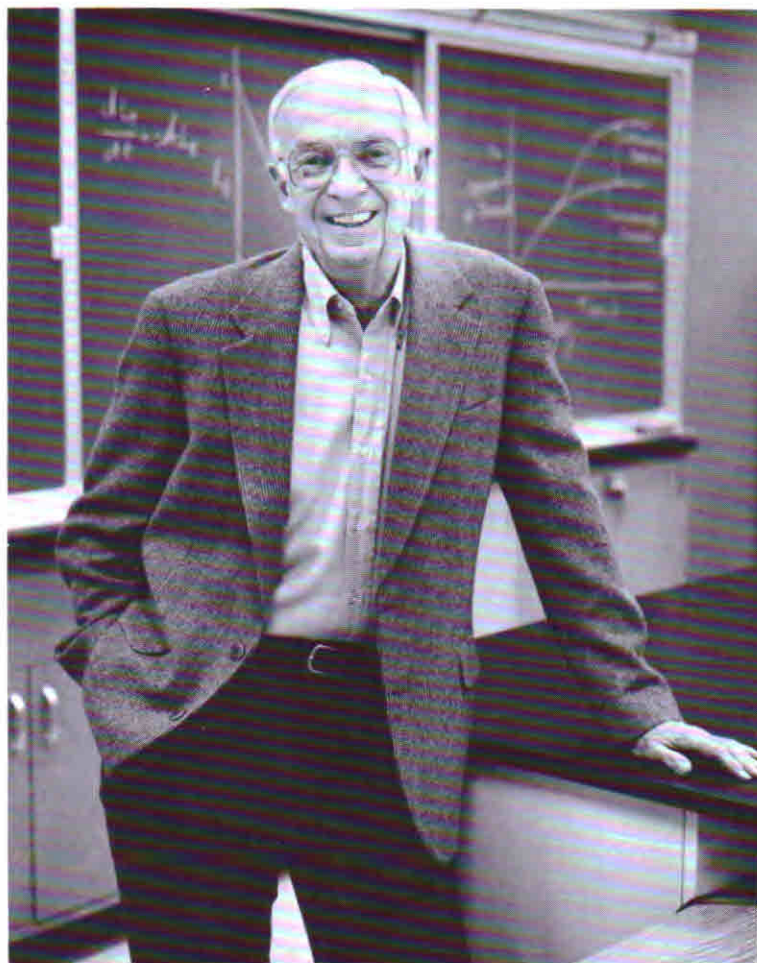
Since its inception in 1948, the Commission, in cooperation with other agencies and organizations, has diligently pursued programs for improving overall water quality in the Ohio River and its tributaries in order to support the expanding activities within the basin. The development of pollution control standards for discharges to the river, leading to the construction and operation of wastewater treatment facilities in communities, has resulted in dramatic improvements in water quality.

When the Compact was signed in 1948, less than one percent of the population in the basin was provided with wastewater treatment. By the end of 1993, only one small community had less than the required treatment. While this marked an important accomplishment, new challenges face the Commission. The uniqueness of ORSANCO, with its competent staff and committees of representatives from various river interests, offers creative approaches to deal with water quality issues.

In January of 1993, ORSANCO began an initiative to attack the problem of nonpoint source pollution. Reaching outside its traditional family, the Commission formed a

nonpoint source task force comprised of environmental protection experts and representatives from the areas of pesticide production, agricultural practices, hydrology, urban stormwater management, and mining. This task force was charged with evaluating the problem in the context of defining the Commission's role for the control of nonpoint source pollution in the Ohio River Valley, and with developing a strategy to coordinate state and federal nonpoint source programs.

Another major issue relating to water quality in the Ohio River and its tributaries is combined sewer overflows (CSOs). Because more than 10 percent of



"The uniqueness of the Commission, with its competent staff and committees representing various river interests, offers creative approaches to dealing with water quality issues."

all CSOs in the U.S. are located in the Ohio River Valley, the Commission has taken a strong leadership role in bringing together state and federal agencies to address this problem and to implement a coordinated strategy for monitoring the impacts of CSOs on the Ohio River.

Recognizing the need to improve our overall knowledge of the river, and at the same time, to involve other interests in the active stewardship of the Ohio River, the Commission developed an innovative program in 1993 to help fund special water quality studies of interest to all river users. The ORSANCO/Ohio River Users Program will use funds contributed by industries and utilities for studies to improve our understanding of the Ohio River which will ensure that future water quality management decisions continue to be based on the best available information.

While ORSANCO addresses the never-ending water quality issues of the Ohio River through implementation of new programs, many time-tested programs, such as the Organics Detection System and the Bimonthly Sampling Program, offer reliable water quality monitoring of the river and its tributaries.

During the past 45 years, the Commission has successfully faced many challenges. However, its mission remains the same -- to provide valley residents with an Ohio River that can be used as a safe, dependable water source by municipalities and industries, while providing water suitable for recreation and capable of maintaining a healthy aquatic community.



Japan Honors Chairman

Dr. Richard S. Engelbrecht received the Order of the Sacred Treasure from the emperor of Japan on December 10, 1993. The decoration was for "extraordinary contributions in guiding and educating Japanese environmental engineers" as well as for contributing to the development of Japan's wastewater treatment technology. He was also cited for his contributions to Japanese wastewater research and for his assistance to students that exceeded the usual limits of a student-professor relationship. Dr. Engelbrecht was reported to be the first foreign engineering professor to receive the honor. The Japanese wastewater engineering students were educated at the University of Illinois' Advanced Environmental Control Technology Research Center, which Dr. Engelbrecht directed from 1979 to 1991.

Assessing Water Quality

Pollution that results from various activities, such as agriculture, mining, industry and urbanization, can have serious effects on water quality.

For the Ohio River and lower reaches of several tributaries, ORSANCO has been charged by its member states with the responsibility of operating certain monitoring programs, thereby acquiring consolidated and consistent data in an economical manner.

The Commission has defined specific water quality objectives for the Ohio River that reflect water quality conditions necessary for the river's use as public and industrial water supply, and to ensure its suitability for recreational use and capability of

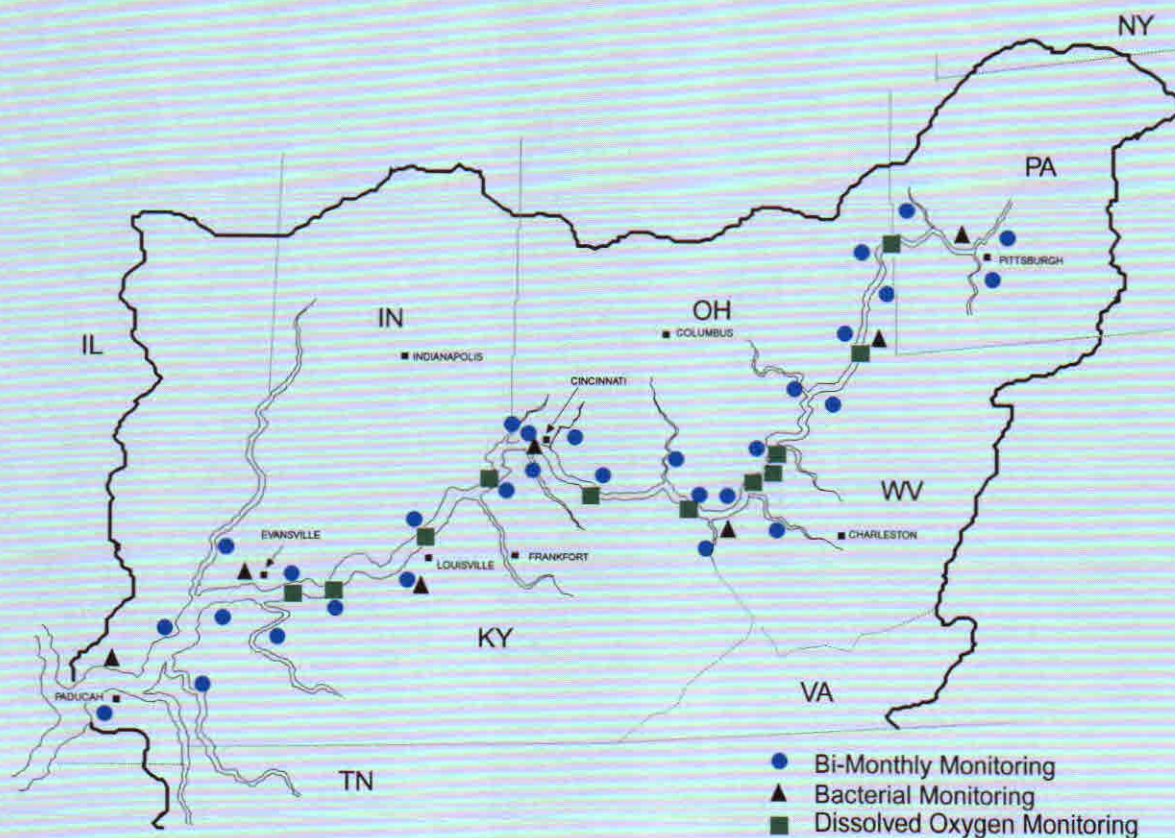
supporting healthy aquatic communities. By comparing water quality conditions with established objectives, important assessments are possible.

The Commission's monitoring programs for the Ohio River and its tributaries include: year-round bimonthly sampling for the presence of various chemical constituents and physical properties; biological assessments of aquatic communities; and dissolved oxygen and bacteria monitoring during the recreational season.

Figure 1 provides the locations of established monitoring points comprising ORSANCO's programs.

Figure 1

ORSANCO Ambient Monitoring Network



The Commission has defined specific water quality objectives for the Ohio River that reflect water quality conditions necessary for the river's use as public and industrial water supply...



Bimonthly Water Quality Sampling

ORSANCO collects bimonthly samples which are analyzed for specific physical and chemical characteristics and for other pollutants, such as heavy metals, phenolics, and cyanide. The resulting data permit evaluations of water quality trends and the possible identification of sources and types of pollution needing further attention.

During 1993, the Commission operated 16 stations on the Ohio River mainstem and 14 sites on its tributaries. Results of 1993 sampling revealed generally good water quality conditions. However, the presence of two metals, lead and cadmium, continued to be observed at levels exceeding the Commission's criteria. Copper and zinc levels exhibited a decrease from 1992, with only one detection. Mercury, selenium and silver had no detections.

Assessing Water Quality

Biological Assessments

Each year, the Ohio River and selected major tributaries are monitored to determine the status of their aquatic communities. In 1993, biological assessments included fish and macroinvertebrate surveys, incorporating several techniques to assist in the development of better scientific methods for large-river assessment.

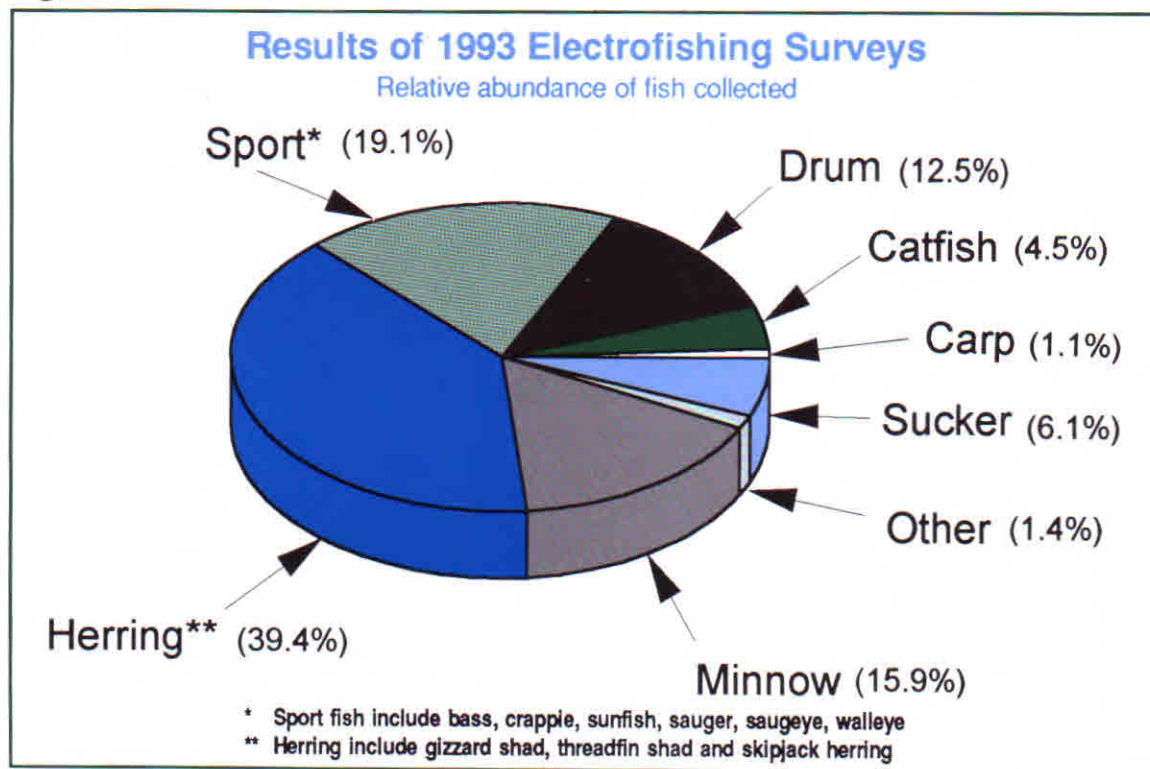
Fish Surveys

Results of the Commission's annual river-wide Fish Population Survey and Tissue Contaminants Monitoring Program, and a Greenup Pool Intensive Survey indicate the river supports a diverse aquatic community. Figure 2 shows the relative abundance of fish caught utilizing electrofishing methods.

In cooperation with state agencies, the Commission collected fish tissue samples from the Ohio River and certain tributaries to be analyzed for selected contaminants. Results of these analyses show that two substances, polychlorinated biphenyls (PCBs) and chlordane, appear at various locations in certain species above guidelines established by the U.S. Food and Drug Administration (FDA) that are considered safe for human consumption.

Results of the Commission's 1992 sampling program prompted five of the six Ohio River states to continue fish consumption advisories for 1993. Fish species included in the advisories of one or more states are carp, channel catfish, white bass, and paddlefish. The Commission's fish tissue data indicated that other species tested, including popular sport fish such as largemouth bass and sauger, do not exceed contaminant limits set by the FDA.

Figure 2



The Commission has defined specific water quality objectives for the Ohio River that reflect water quality conditions ... to ensure its capability of supporting healthy aquatic communities.

The Commission conducted an intensive biological survey in the Greenup Pool during 1993 to develop better techniques for assessing fish population and macroinvertebrate communities, and to evaluate habitat associated with large river systems, such as the Ohio. The survey provided fish population and macroinvertebrate data from 22 sites within the 61-mile navigational pool from the Robert C. Byrd (Gallipolis) Dam to the Greenup Dam.



Macroinvertebrate samplers are placed in the river during electrofishing surveys.

Macroinvertebrate Sampling

Since 1991, the Commission has conducted annual surveys of macroinvertebrate communities. Macroinvertebrates include aquatic insects, crayfish, mollusks, and worms. These organisms are important as a food source for many fish species and as an indicator of water quality.

In 1993, macroinvertebrate communities were surveyed at 31 sites corresponding to areas where electrofishing was conducted. This provided information on two components of the biological community at each location, which allows a more comprehensive assessment of Ohio River biodiversity.

Electrofishing

During electrofishing surveys, fish are collected at night in a defined area or "zone." An electrical current is generated in the water around the boat. Fish are attracted to the electrical field and are immobilized, allowing the electrofishing crew to scoop the stunned fish and place them in a large holding tank. After electrofishing an area, fish are identified, measured, weighed, and returned alive to the water, except for those retained for tissue contaminant analysis.

Assessing Water Quality

Dissolved Oxygen Monitoring

Adequate oxygen levels are important for sustaining a healthy and diverse aquatic community in the river.

The Commission monitors dissolved oxygen conditions in the Ohio River during the months of May through October by acquiring, through remote interrogation methods, automated sampling analysis data from electronic monitors operated by the U.S. Army Corps of Engineers and hydropower plants at navigational dams. This information provides the basis for determining possible actions, such as adjusting

dam overflows or modifying/curtailing hydropower plant operation, in order to protect against low oxygen conditions.

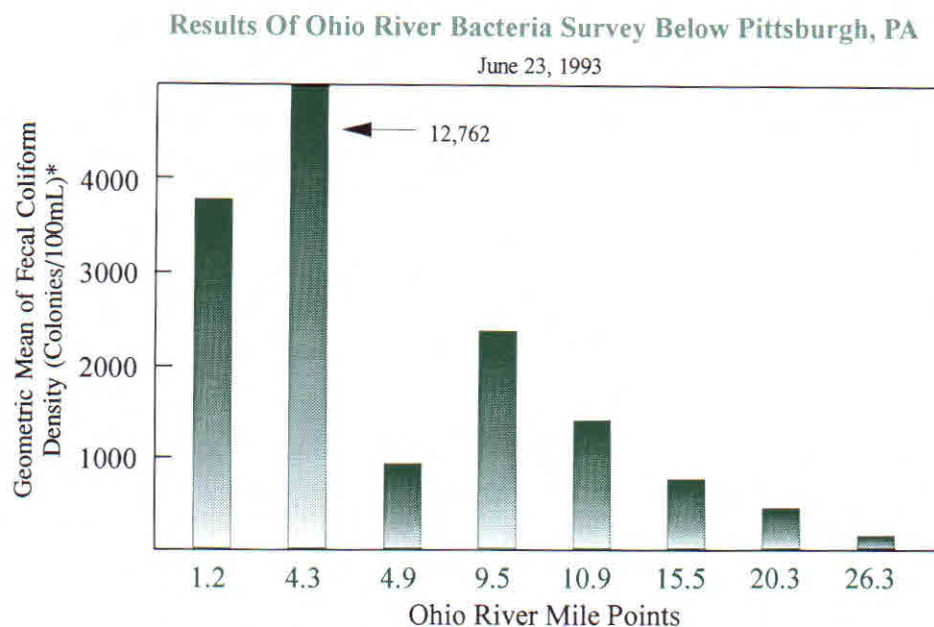
For the first time in several years, 1993 dissolved oxygen concentrations approached, and at some locations, fell below recommended minimum levels necessary for fully sustaining healthy aquatic communities. These low concentrations were due to the combination of low flow conditions and extremely high summer temperatures. No fish kills were reported.



Cannelton Lock and Dam

U.S. Army Corps of Engineers Photo

Figure 3



* Geometric mean of a minimum of 3 samples taken at designated mile points.

The Commission has defined specific water quality objectives that reflect water quality conditions to ensure its suitability for recreational use...

Bacteria Monitoring

During the months of May through October, the Commission monitors water quality for the presence of fecal coliform and *E.coli* bacteria. Above certain levels, these bacteria may pose increased risks to swimmers and those who may come into contact with the water.

Monitoring is conducted downstream of large urban centers which are likely to have the highest concentration of these bacteria.

In 1993, the Commission collected samples from seven locations. Results indicated 26 of 42 possible monthly exceedances of ORSANCO's water quality criteria for bacteria, representing a 35 percent increase from the number recorded in 1992. Much of this increase was the result of four monthly exceedances in Huntington, West Virginia as opposed to none in 1992. Additionally, ORSANCO conducted intensive bacteria surveys in several urban areas. Results of the Pittsburgh survey are shown in Figure 3.

Contact Recreation Advisories

Elevated levels of fecal coliform and *E.coli* bacteria in the river may cause sore throats, gastrointestinal illness, ear infections and other health problems for people who come in contact with the water. In 1992, ORSANCO began providing weekly bacterial data from May through October to local health departments, state agencies and local municipal sewer utilities along the river. These data allow public health departments to assess river conditions and issue contact recreation advisories for their areas, if necessary.

Among the communities that issued or let stand existing advisories against contact recreation in 1993, were Cincinnati, Pittsburgh, and Louisville.

Abatement of Pollution from Combined Sewer Overflows

Combined sewer systems -- those sewers which carry both stormwater and wastewater -- are found in most older cities in the United States. Such systems were typically designed to convey wastewater to a central point under dry weather conditions and to discharge to waterways at multiple points when carrying large quantities of stormwater, resulting from rainfall or snow melt.

A national inventory of Combined Sewer Overflows (CSOs) compiled by the U.S. Environmental Protection Agency indicates that 67 percent of all CSOs are located within ORSANCO's eight member states. While many of these are situated in portions of the states which are outside the Ohio River Basin, CSOs constitute a significant concern in the Ohio River Valley.

To date, over 1300 CSOs have been identified in 62 cities along the main stem of the Ohio River, with more than 75 percent of the overflows located in 10 large urban areas. (See Figure 4.)

In response to the significant CSO problem in the Ohio River Valley and the interstate nature of CSO impacts on water quality, ORSANCO has spearheaded a coordinated and consistent effort for addressing this issue. In 1992, the Commission and representatives of state water quality agencies, U.S. EPA, and local wastewater treatment utilities developed an eight-point Action List for the control of CSOs to the Ohio River.

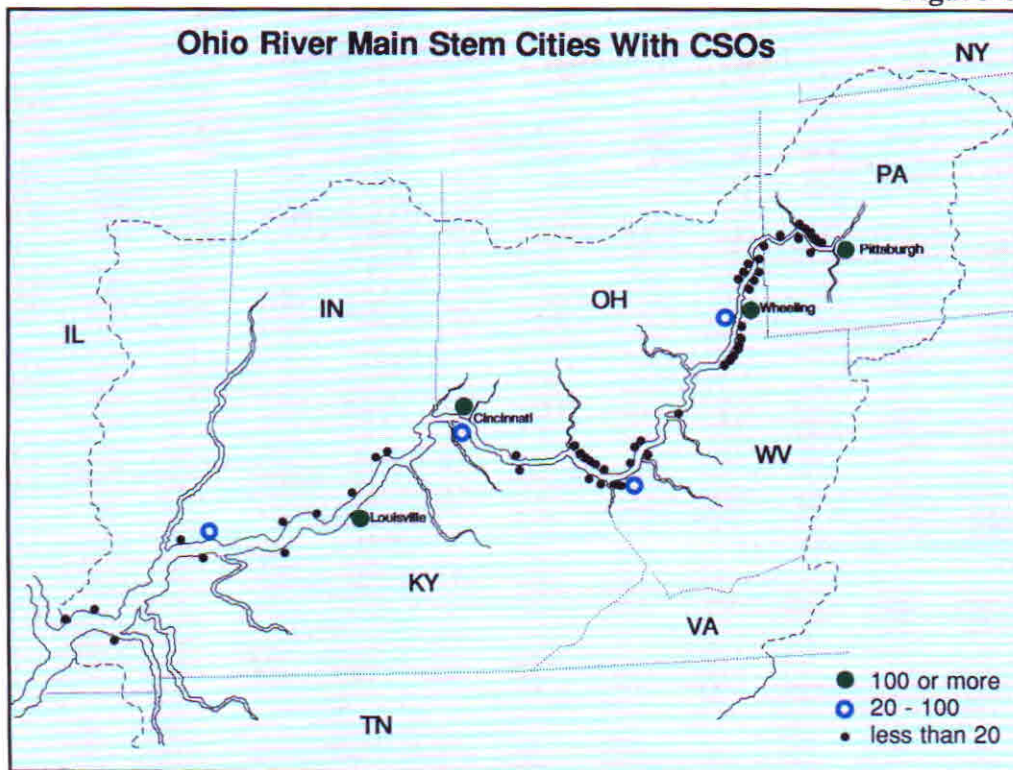
In June of 1993, the Commission hosted a workshop for national experts to participate in developing a strategy for monitoring impacts of CSOs on the Ohio River.



National experts help develop a CSO monitoring strategy for the Ohio River at the Commission's workshop in June

The resulting strategy, adopted by the Commission in 1993, serves as a main component of the initiative and continues to define ORSANCO's CSO abatement efforts.

Figure 4



Addressing Nonpoint Source Pollution

...because of its diffuse nature, a broad-based coalition is needed to develop effective nonpoint source abatement initiatives

Over the past 45 years, great progress has been made to improve water quality of the Ohio River through the installation and operation of wastewater treatment facilities. With the successful installation and operation of such "point source" controls, nonpoint source pollution is now the most significant source of pollution impacting water quality of the Ohio River and its tributaries.

Nonpoint source problems result principally from urbanization, agriculture, forestry, and mining activities. However, unlike point sources, because of its diffuse nature, a broad-based coalition is needed to develop effective nonpoint source abatement initiatives.

In January of 1993, the Commission took action to address this major concern by establishing a Nonpoint Source Pollution Abatement Task Force that includes representatives from federal agencies, state and local government, agribusiness, mining, and public interest groups.

The Task Force was charged with defining the Commission's role in addressing nonpoint source pollution in the Ohio River within a strategy that defines a coordinated approach among local, state and federal agencies working to achieve this common goal in the Ohio River Valley.

In September of 1993, the Task Force began its work on the strategy, including determining the degree to which nonpoint sources impair water quality of the Ohio River and its tributaries, and assessing sources of such pollution in the watershed.

ORSANCO

Nonpoint Source Pollution Abatement Task Force

Co-Chairmen:

Ed Logsdon, ORSANCO
Commissioner, KY
Commissioner of Agriculture

Donald Schregardus,
ORSANCO Commissioner,
Director of OH Environmental
Protection Agency

James Park, Manager, Water
Pollution Control, IL Environ-
mental Protection Agency

L. Eli McCoy, Deputy Director,
WV Division of Environmental
Protection

Tom Davenport, U.S. Environ-
mental Protection Agency
Region V

Steve Hindall, District Chief,
U.S. Geological Survey

Billy Milliken, State
Conservationist, U.S. Soil
Conservation Service

Nancy Erickson, Director
of Natural Resources, IL
Farm Bureau

Richard Kerch, Director,
Air and Water Quality
Activities, Consol, Inc.

Sam George, Director,
Cincinnati Stormwater Utility

Gary King, President, OH Agri-
Business Association

Reed Coen, Chairman,
ORSANCO Public Interest
Advisory Committee

Pollution Control Standards

The Ohio River Valley Water Sanitation Compact authorizes the Commission to adopt "rules, regulations, and standards" to assure that wastes discharged in one state do not injuriously affect the waters of another state. Since 1951, ORSANCO has maintained Pollution Control Standards for discharges to the Ohio River. The standards include designation of water uses, water quality criteria to protect those uses, and wastewater discharge requirements to assure that the criteria are met in the river.

To ensure that the standards reflect current knowledge and concerns, the Commission conducts a review every three years. A review was completed in 1993, with key changes as follows:

- Addition of an *antidegradation* provision, stating that no degradation of water quality interfering with existing beneficial uses will be tolerated
- Adoption of specific requirements for combined sewer overflows (CSOs), including requirements for development and implementation of CSO minimization plans and prohibition of dry weather overflows under most conditions
- Adoption of narrative *biological criteria* -- a first step toward establishing numerical biological criteria for the Ohio River



Members of the Hearing Board at July Pollution Control Standards Public Hearing: Ronald Potesta, Richard Miller and Terry Anderson

When the Commission was created in 1948, less than one percent of sewered communities along the Ohio River included a central treatment facility. Just 16 years later that figure rose to 99 percent. In 1970, the Commission established standards requiring more advanced treatment of discharges. By the end of 1993, only one small main stem community, which is expected to attain compliance in 1994, had less than the required treatment.

Tracking List for Discharges to the River

A tracking list of selected discharges to the Ohio River was initiated by the Commission in 1984. Forty-five facilities, whose discharges could have significant impacts on water quality of the river, were tracked in 1984. Each year in September, facilities are reviewed, and when they reach compliance, they are removed from the list. In 1985, the list was reduced to 35 dischargers. The 1993 Tracking List includes 25 facilities.

ORSANCO tracks certain dischargers for compliance to ensure that the Commission's Pollution Control Standards are being achieved. Fifteen facilities with high-volume discharge (greater than 10 million gallons per day) and 10 facilities with previous compliance problems were monitored in 1993. Charlestown, Indiana Wastewater Treatment Facility was removed from the list because it had no violations for two consecutive years.

The Compact provides ORSANCO enforcement powers to correct compliance problems. In 1993, the Commission, along with U.S. EPA and Ohio EPA, was involved in administration of consent orders for the City of Wellsville, Ohio and the Cincinnati Metropolitan Sewer District - Mill Creek Sewage Treatment Plant.

Emergency Response

The Ohio River's use for industrial processing, transportation, and power generation, creates the potential for accidental spills or discharges from many sources. Any spill to the river or its tributaries has potential interstate impact.

When such an event occurs, the Commission plays a pivotal role in facilitating communication and coordination among local, state and federal response agencies. Of critical importance is the notification to downstream water users if a potentially harmful spill occurs. As part of its emergency response program, ORSANCO maintains a 24-hour telephone service to receive spill reports and operates an electronic bulletin board to disseminate information.

In order to enhance its ability to detect spills or discharges, the Commission established an Organics Detection System (ODS) in 1978 to monitor the river for the presence of certain organic chemicals. The system operates daily with the cooperation of Ohio River water utilities and industries. Because the Ohio River is used as a source of drinking water for over three million people, spills continue to be a particular concern with regard to water supply. The following major spills or discharges occurred in 1993:


Chemical Spill

In March, approximately 62,000 gallons of toluene were released to the Ohio River as a result of barge off-loading activities at an ITAPCO petroleum storage and transportation facility in the Louisville area. ORSANCO's data indicated possible water supply concerns almost 200 miles from the spill site. Among the response actions was the establishment of a temporary monitoring location by the company 18 miles upstream of Evansville's intake to provide advance warning.

Mine Water Discharge

An active coal mine in Meigs County, Ohio was flooded with one billion gallons of water from an adjacent inactive portion of the mine in July. The Southern Ohio Coal Company (SOCCO) was granted emergency authorization from the Ohio Environmental Protection Agency to discharge the contaminated water to Leading and Raccoon Creeks, which flow directly to the Ohio River near Gallipolis. To monitor the impacts of the discharge, ORSANCO established a water quality sampling program that was conducted over several months, with resulting data disseminated to provide timely assessment of conditions.

Leading Creek was rendered devoid of aquatic life due to the discharge of water containing high levels of certain metals. Impacts to Ohio River water quality were identified in the vicinity of the creek's confluence with the river.



Cindy Hurley checks water sample for organic chemicals at Paducah Water Works ODS site.

Involving the Public in River Stewardship

Public interest in Ohio River water quality is fostered by increased understanding of the problems associated with water pollution. Through presentations to schools and other interested organizations, and participation in conferences and river-based events, ORSANCO provides information on the Ohio River and encourages citizens to get involved in projects which improve water quality.

Two Commission programs invite the public to participate and enable volunteers to work hand-in-hand with state agencies, local organizations and river-based industries to improve the river: the Ohio River Sweep, a one-day river bank cleanup; and the Volunteer Monitoring Program for the Ohio River, a citizen water quality monitoring effort.

The Ohio River Sweep

The Ohio River Sweep celebrated its fifth consecutive year in 1993. Volunteers at 310 sites in all 72 counties along the Ohio River from Pittsburgh, PA to Cairo, IL and on several tributaries participated in this successful cleanup. Working with state environmental and natural resource agencies, ORSANCO helped coordinate 17,000 volunteers, who collected over 14,000 tons of trash and debris.

This event has received numerous awards, including four national "Take Pride in America" awards from the U.S. Department of the Interior. The Sweep is sponsored by Ohio River businesses and industries.

Ohio River Sweep Corporate Contributors for 1993

OHIO RIVER SWEEP



Let's keep it clean!

Ashland Oil, Inc.

Dow Corning

Louisville Gas & Electric

Louisville Water Company

Procter & Gamble

American Electric Power

Wheeling-Pittsburgh Steel

Neville Chemical Co.

ARCO Chemical Co.

BASF

Miles, Inc.

GE Plastics

DuPont

The Ohio River Company



Volunteers help collect more than 14,000 tons of trash during the 1993 Sweep.

Volunteer Monitoring Program

In 1992, the Commission initiated a year-long volunteer monitoring project, on a trial basis, providing citizens the opportunity to analyze water quality. Five volunteer groups from schools and environmental organizations were selected to conduct chemical testing at various locations on the Ohio River and several of its tributaries.

Due to the success of the project, volunteer monitoring was adopted by the Commission in 1993 as one of its regular programs and expanded to include five additional monitoring groups and a greater number of monitoring sites. Biological monitoring was also offered to several groups as an added dimension to the program.

"Volunteer Monitoring provides opportunities, motivation, and a glimpse of the world beyond the school walls."

Sharon Knoblich, Educator
Washington Lands Elementary
School, Moundsville, WV



Students in Ripley, OH learn about water quality

Volunteer Monitoring Groups for 1993-94

- ASM Boy Scout Troop 357 - Mt. Vernon, IN
- Bruce Middle School Eighth Grade Science
Louisville, KY
 - Buckeye Local High School Biology
Rayland, OH
 - Lawrenceburg High School Biology
Lawrenceburg, IN
- Massac County High School Environmental
Science - Metropolis, IL
- Owensboro High School Student Environmental
Awareness League (SEAL) - Owensboro, KY
- Ripley Elementary School Fifth Grade Science
Ripley, OH
- St. Mary's Elementary School Fifth/Sixth Grade
Science - Marietta, OH
 - Highlands Group of the Sierra Club
Ashland, KY
- Washington Lands Elementary School Sixth
Grade Science - Moundsville, WV

Special Projects

Ohio River Corridor Valuation Survey

In 1993, ORSANCO and the National Park Service entered into a Cooperative Agreement, with the assistance of the Ohio River Basin Commission, to conduct an assessment of readily available information on the value of the Ohio River. The intent of the survey was to draw attention to the economic, cultural, and environmental importance of the Ohio River. The results are expected to be published in 1994.

Area Contingency Plan for the Ohio River Basin

During 1993, ORSANCO in cooperation with the U.S. EPA Region V, assisted in the development of an Area Contingency Plan. Such plans are required by Section 4202(b) of the Oil Pollution Control Act, and necessitate a thorough understanding of possible environmental and economic impacts on the river. The Commission compiled inventory information for the plan, including data on surface and industrial water intakes, identification and location of environmentally sensitive areas and river terminals.

Ohio River Basin Geographic Information System

The Commission recently completed a three-year project to develop a Geographic Information System (GIS) for water quality management within the Ohio River Basin. Among the objectives of the cooperative agreement between the Commission and the U.S. EPA Drinking Water Research Division was enhancement of the Commission's spill response through computer based technology.

GIS uses computer graphics to provide visual display of geographic information. The fundamental map feature within the GIS is the stream network for the entire Basin, including shorelines for the Ohio River and nearby tributaries.

A model was developed for the Ohio and its tributaries to simulate movement of a spill and to predict the time it takes for a spill to reach a certain location. Emphasis for the model was placed on ease of use and obtaining quick results during a spill scenario.

ORSANCO/Ohio River Users Program

In 1993, the Commission, working with a steering committee of representatives from towing, manufacturing, petrochemical, pharmaceutical and power industries, and water/wastewater utilities, established the ORSANCO/Ohio River Users Program. This innovative new program will combine financial support -- through annual contributions to a Water Quality Management Special Project Fund -- and the expertise of industries, utilities and other river users, with the capabilities of ORSANCO, to help fund needed studies. The studies will improve the scientific data base for the Ohio River and, in turn, support technically effective and economically efficient water quality management decisions. An advisory committee will provide guidance to the Commission on the overall operation and administration of the program, review and make recommendations regarding the scientific merit and relevance of proposed studies, and monitor the progress of ongoing studies. A first project is expected to be initiated in 1994.

Administrative Year in Review



Ronald Potesta, Alan Vicory, Melvin Hook, Richard Engelbrecht, Richard Herd, and Thomas Heekin at the May 13, 1993 dedication of ORSANCO's new headquarters.

New Building Dedicated

In February of 1993, ORSANCO completed construction of a new headquarters facility in Cincinnati which is estimated to save the Commission approximately \$1.5 million in operating costs over the next 30 years. In addition to the direct financial benefit, the Commission's operational capabilities will be made more efficient, including the enhancement of spill response by consolidating all equipment at one location. A ceremony was held on May 13 to dedicate the new building.

Officers Elected

Richard S. Engelbrecht of Illinois was elected chairman and Ronald R. Potesta of West Virginia was elected vice chairman of the Commission. Thomas A. Erlandson of New York was elected secretary. Richard L. Herd of the Commission staff was elected treasurer for the period of July 1, 1993 through June 30, 1994.

The Commission is comprised of three representatives from each signatory state and three from the federal government. State commissioners are appointed by the governor of their respective state; federal representatives are appointed by the president of the United States. Commissioners participate as a public service and receive reimbursement only for their expenses in performance of Commission-related activities.

Advisory Committees

The Commission receives advice and counsel from a wide range of viewpoints through its advisory committees. Each represents a particular river-based interest. PIACO, the Public Interest Advisory Committee is comprised of private citizens from the member states. Public and private utilities that use the river as a source of water supply make up the Water Users Advisory Committee. The Publicly Owned Treatment Works (POTW) Advisory Committee represents wastewater treatment departments or districts in the Ohio Valley. Industry advisory committees include those representing power and chemical production. All advisory committee members serve on a voluntary basis.

Financial Report

The following financial information was extracted from the
Annual Audit Report of Hall & Associates
Certified Public Accounts
for the year ending June 30, 1993

COMBINED STATEMENT OF ACCRUED REVENUES, EXPENSES AND AVAILABLE RESOURCES

UNRESTRICTED FUNDS

RESOURCES	GENERAL FUND	UP RIVER BIO/REC STUDY	OH RIVER GIS DEMO PROJECT	OHIO RIVER SWEEP	AREA CONTIN'CY PLAN	VOLUNT'R MONITOR	TOTAL FUNDS
CARRYOVER ON JULY 1, 1992	\$45,177	\$187,429	\$0	\$4,165	\$0	\$0	\$236,771
REVENUES							
Illinois	\$44,760						\$44,760
Indiana	\$166,940						\$166,940
Kentucky	\$191,820						\$191,820
New York	\$9,310						\$9,310
Ohio	\$226,900						\$226,900
Pennsylvania	\$124,780						\$124,780
Virginia	\$32,310						\$32,310
West Virginia	\$98,280						\$98,280
U.S. EPA, 106 Grant	\$355,674						\$355,674
U.S. EPA, GIS Demo			\$57,425				\$57,425
PA DER		\$305,981					\$305,981
Other Sources				\$108,600	\$27,790	\$2,500	\$138,890
Miscellaneous	\$2,730						\$2,730
Interest		\$9,487					\$9,487
TOTAL RESOURCES	\$1,298,681	\$502,897	\$57,425	\$112,765	\$27,790	\$2,500	\$2,002,058
EXPENDITURES							
EXPENSES							
Temporary Help	\$2,040			\$4,137			\$6,177
Payroll	\$480,824	\$33,520	\$26,822	\$12,585	\$12,076	\$3,618	\$569,445
Employee Benefits	\$123,294	\$8,712	\$6,571	\$3,083	\$2,959	\$886	\$145,505
Staff Travel	\$66,167	\$2,084	\$52	\$3,489	\$2,985	\$604	\$75,381
Commission Travel	\$45,752						\$45,752
Adv. Com'tee Travel	\$18,666						\$18,666
Supplies	\$137,131	\$1,980		\$69,030	\$2,834	\$1,816	\$212,791
Telephone	\$21,658	\$1,020					\$22,678
Equipment	\$69,810	\$39,950	\$429				\$110,189
Rent & Utilities	\$32,978						\$32,978
Repairs & Maintenance	\$45,541						\$45,541
Contractual Services	\$18,485	\$187,427	\$38,423				\$244,335
Printing & Reproduct.	\$28,178	\$360		\$3,845			\$32,383
Lab Fees & Delivery	\$101,657						\$101,657
Building Expenses	\$28,850						\$28,850
Special Project Expense	\$39,388		(\$28,284)		(\$3,541)	(\$7,563)	\$0
Project Overhead	(\$37,947)		\$13,412	\$10,919	\$10,477	\$3,139	\$0
TOTAL EXPENDITURES	\$1,222,472	\$275,053	\$57,425	\$107,088	\$27,790	\$2,500	\$1,692,328
RESOURCES AVAILABLE	\$76,209	\$227,844	\$0	\$5,677	\$0	\$0	\$309,730
June 30, 1993							

The Commission maintains funds in two restricted accounts that are available for specific expenses with approval by the Commission. A brief description of the accounts follows.

The Compliance Account was established in 1985 to mitigate potential expenses that could be incurred through litigation or by responding to spill events. The account is funded by the interest earned on funds received from Commission States and is limited by a \$50,000 ceiling.

The Special Account was established in 1989 to receive fines, settlements, reimbursements or any other monies that may be made available as a result of an action by the Commission or one of its members or by donation by others. Disbursements from this account are made at the direction of the Commission.

RESTRICTED FUNDS

RESOURCES	COMPLIANCE ACCOUNT	SPECIAL ACCOUNT	TOTAL RESTRICTED ACCOUNTS
CARRYOVER ON JULY 1, 1992	\$ 50,000	\$ 94,920	\$ 144,920
REVENUES			
Interest Income	\$ 0	\$ 10,113	\$ 10,113
TOTAL RESOURCES	\$ 50,000	\$ 105,033	\$ 155,033
EXPENDITURES EXPENSES			
Equipment	\$ 0	\$ 8,925	\$ 8,925
Contractual Services	\$ 0	\$ 12,000	\$ 12,000
TOTAL EXPENDITURES	\$ 0	\$ 20,925	\$ 20,925
RESOURCES AVAILABLE June 30, 1993	\$ 50,000	\$ 84,108	\$ 134,108

PENSION INVESTMENTS

The following information was extracted from the
Annual Actuarial Report of William M. Mercer, Inc.
for the year ending September 30, 1993

STATEMENT OF RESOURCES AND DISBURSEMENTS EMPLOYEES' PENSION TRUST FUND

Pension Trust Fund Value – October 1, 1992	\$ 1,177,746
Annual Employer Contribution	25,800
Fund Earnings and Change in Market Value	158,018
Disbursements for Year Ending September 30, 1992	(69,508)
Pension Trust Fund Value – September 30, 1993	\$ 1,292,056

Publications

Publications are developed to provide information on water quality conditions and activities of the Commission. Charges are levied for some publications to cover production and mailing costs. The charges are waived for requests from educational institutions, government agencies and non-profit organizations. In 1993, the following publications were produced:

ORSANCO

Annual report of activities during 1992

Quality Monitor

Semi-annual publication of data summaries from the Manual Sampling program and the Organics Detection System

Emergency Response Directory

A compilation of instructions concerning the appropriate agencies to notify when a spill or accidental discharge occurs to the Ohio River or a tributary

The ORSANCO Outlook

A newsletter published periodically with general information on water quality conditions and the activities of the Commission

RiverWatchers

A newsletter for participants in ORSANCO's Volunteer Monitoring Program for the Ohio River

Technical Reports:

Assessment of Water Quality Conditions for the Ohio River - 1990-91

Pollution Control Standards for discharges to the Ohio River, 1993 Revision

Staff *

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Data Processing Technician

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Aquatic Biologist

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David K. Plummer
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Jerry G. Schulte
Biologist

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Environmental Specialist

Peter A. Tennant, P.E.
Technical Programs Manager

Alan H. Vicory, Jr., P.E.
Executive Director & Chief Engineer

* As of December 31, 1993

Regulatory Agencies of the Signatory States

Illinois

Division of Water Pollution Control
Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62794

Indiana

Office of Water Management
Department of Environmental Management
100 Senate Avenue
Indianapolis, Indiana 46225

Kentucky

Division of Water
Natural Resources and Environmental Protection Cabinet
18 Reilly Road
Frankfort, Kentucky 40601

New York

Division of Water
Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Ohio

Division of Water Pollution Control
Environmental Protection Agency
Post Office Box 1049
Columbus, Ohio 43266-0149

Pennsylvania

Bureau of Water Quality Management
Department of Environmental Resources
Post Office Box 2063
Harrisburg, Pennsylvania 17105

Virginia

State Water Control Board
Post Office Box 11143
Richmond, Virginia 23230

West Virginia

Division of Environmental Protection
Office of Water Resources
1201 Greenbrier Street
Charleston, West Virginia 25311

