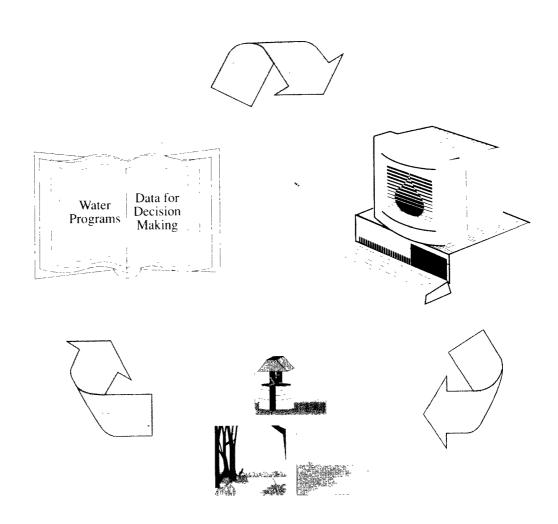


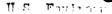
## Office Of Water Environmental And Program Information Systems Compendium

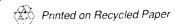
FY 1990



Information Resources Management:

Tools For Making Water Program Decisions





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Mary E. Blakeslee, Director Office of Resources Management and Administration

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#### Overview

The Federal statutes that govern water programs convey a unique stewardship role to EPA and its State counterparts: protecting and restoring the integrity of the Nation's water resources. In order to carry out this mission, the Agency and its partners collect and manage large amounts of information. The type of information collected ranges from site-specific information on water and sediment chemistry, biota, and hydrogeology to national summary information on program implementation.

Although the Agency's water programs collect information primarily to support their own program decision making, each individual program collects information that can also be valuable to programs elsewhere within and outside the Agency. However, there is not a widespread awareness of what information is available from sources outside each individual program.

The purpose of this compendium is to increase the awareness of water program managers about the kinds of information available for their use as they make policy and program decisions. This is accomplished with a combined text and graphic profile of 19 key Office of Water information systems. These profiles highlight the type of information contained in the 19 systems and the management tools (statistical, graphical, and linkage packages) associated with each.

This compendium contains several tools that help users quickly determine which profiled systems contain information germane to their specific needs. These tools consist of two matrices and a key word index arrayed so that users can easily determine which systems contain information in the six natural resource areas managed by the Water Program, in the functional areas covered (permitting, monitoring, etc.), and where more than one system contains similar information. The matrices and key word index are also intended to provide a cross-program perspective so that decision makers can better understand and use water information within the broader community of water information providers and users.

The compendium also contains summary descriptions of nearly 100 additional Office of Water environmental and program information systems and 20 water-related systems from other EPA program offices, other Federal agencies, and special interest groups. The purpose of including these systems is to emphasize the availability of a wide range of water information and to stress the importance of cross-program information sharing for successful program management.

#### The Process for Developing the Compendium

Interviews were held with approximately 50 Office of Water Division Directors, Branch Chiefs, and Section Chiefs to discuss the need for an Office of Water Information Systems Compendium and how to best organize such a document. In these interviews, program managers and their staff emphasized that the compendium should focus on the availability and usefulness of the information in the systems. They requested that the information in the systems be discussed in the context it was collected and that its completeness, timeliness, and quality be addressed. The managers also emphasized the importance of identifying non-Office of Water information systems that would be useful to the Water Program. They also indicated that they wanted an easy tool to help identify where they can find topic-specific information.

Interviewees suggested a variety of different ways to array information to help them decide whether or not to further investigate a specific information system. The tools most frequently identified were profiles, matrices, key words, and a system inventory. All these tools have been incorporated into the document.

National system managers have worked closely in the development of this compendium to ensure that it accurately represents the information systems maintained by the water program. They and their staffs have provided extensive background information about their systems, participated in the design of profiles, and reviewed drafts of materials. Their contributions have helped significantly in ensuring that the compendium provides a clear and accurate summary of the information and the historical context of each system. These factors are important to decision makers as they decide if available information is relevant or useful for their specific program activities.

### **Next Steps**

The Office of Water (OW) considers this compendium a first step toward developing a comprehensive picture of water program information available to potential users. The compendium is meant to be a living document, and as such, will be revised in the future based on user comments. In addition, future versions of the compendium will address additional water program systems maintained in Regional EPA Offices both within and outside the Office of Water and look closely at available water information systems managed by Regional programs and other Federal agencies.

Water program managers and staff throughout OW have suggested additional tools to make information about water program information systems more available. These include clearinghouses to share information about water program information and automated tools to aid potential users in determining the value of water program information to support their decisions. These suggestions will serve as the foundation for future efforts to increase the awareness and use of water program information.

#### How the Compendium is Organized

Each information system profile is two pages in length. The first page consists of text that describes the information in the system and its uses. The second page visually arrays the type of information and management tools provided in the system.

Two tools have been incorporated into the document to enable users to quickly identify which of the 19 systems profiled are most pertinent to their informational needs. These are:

- Cross-Program Matrices that graphically portray which systems contain information on specific natural resources and/or on program functions such as permitting and monitoring.
- A Key Word List that contains over 40 key water resource management terms enabling the user to determine which systems contain information in a particular topic area.

In addition to the 19 System Profiles, the document also contains an OW Environmental and Program Information Systems Inventory in which nearly 100 additional Headquarters Office of Water information management systems are described. The short descriptions focus on the purpose and key information available in these systems.

At the request of water program managers, a section with descriptions of selected water-related systems not maintained by EPA, but containing information useful to meeting the Water Program's mission, have been included.

At the beginning of each chapter of the Compendium is an introduction that summarizes the purpose and content of that chapter. Where appropriate, the chapter also discusses how to use the tools that follow.

### Matrices

#### Introduction

Two Matrices have been developed to help readers quickly identify which of the 19 systems profiled contain information useful to them. The two matrices are:

- Office of Water Information Systems by Water Resource Area and Data Base--This is a checklist of which information systems contain information about the six water resource areas managed by the Water Program (coastal and marine waters, rivers and streams, lakes, wetlands, ground water, and drinking water).
- Office of Water Information Systems by Water Resource Area and Function--This is a checklist of which of the 19 key information systems profiled in the compendium contain information supporting program functions (e.g., research, monitoring, standard setting, permit writing, and enforcement) and indicates to which of the six water resource areas managed by the Water Program the information applies.

These matrices also promote cross-program information sharing by enabling users to see where more than one source of information is available to support work in each of the six water resource areas.

# Office of Water Information Systems and the Water Resource Areas They Support

			W	ater Reso	ource Ar	eas	
	ODW RIA	Coastal & Marine Waters	Rivers & Streams	Lakes	Wetlands	Ground Water	Drinking Water
	Studies  Drinking Water  Supply File		*	*		*	*
	Effluent Guidelines Studies	*	*	*	*	*	
	FRDS		*	*		*	*
ns	Gage, City, Dam Files	*	*	*	*		
Systems	GICS-CG/SRF		*				
ı Sy	Hazardous Waste Injection Well DB					*	
ıtion	Industrial Facilities Discharge File	*	*	*	*	*	
Information	Lists	*	*	*	*	*	*
lnfo	Needs Survey	*	*	*	:		
	ODES	*					
	PCS	*	*	*	*		
	Reach File	*	*	*	*		
	STORETBIOS	*	*	*	*		
	STORET-Daily Flow		*				
	STORET-Fish Kill	*	*	*			
	STORETWater Quality	*	*	*	*	*	*
	UIC Program Summary System					*	
	Waterbody System	*	*	*	×		

### Office of Water Information Systems by Water Resource Area and Function

	Coastal & Marine Waters	Rivers & Streams	Water Reso	urce Areas	Ground Water	Drinking Water					
Research	BIOS RF EFG WQS	BIOS GCD EFG RF FK WQS	BIOS GCD EFG RF FK WQS	BIOS GCD EFG RF	EFG HWIWDB	DWRIA HWIWDB					
Monitoring	BIOS RF FK WBS L WQS ODES	DFS RF FK WBS GCD WQS L	FK WBS GCD WQS RF	BIOS FK RF	UICS HWIWDB	DWS HWIWDB FRDS UICS					
Tun Standard Setting	EFG L RF	EFG L IFD RF	EFG IFD RF	EFG RF	EFG HWIWDB	DWRIA HWIWDB					
을 Permit Writing	ODES PCS RF	GCD PCS RF	GCD PCS RF	PCS RF	PCS UICS	FRDS UICS					
Enforcement	PCS ODES RF	PCS RF	PCS RF	PCS RF	PCS UICS	FRDS					
		Office of M	latar Information Co	votomo and Thair	Aaranimaa						
	DFS DWRIA	STORET Biological Sys STORET Daily Flow Sy Drinking Water Regula	stem tory Impact Analyses	IFD II L L NS N	Industrial Facilities Discharge File Lists Needs Survey						
	EFG FK FRDS	Drinking Water Supply Effluent Guidelines Stu STORET Fish Kill File Federal Reporting Data Gage, City, and Dam F	dies a System	PCS F RF F	Ocean Data Evaluation System Permit Compliance System Reach File Underground Injection Control Program						
	GICS-CG/SRF	Grants Information/Cor Hazardous Waste Injec	ntrol System		Summary System Waterbody System STORET Water Quality System						

## Key Word List

#### Introduction

The Key Word List is another tool that quickly points potential users to those system profiles that contain information useful to them in implementing their programs. The List was developed with the assistance of water program managers and contains over 40 terms commonly associated with the implementation of water programs. The words are arrayed alongside the 19 systems profiled in the compendium. Check marks indicate in which systems information associated with the key words can be found. The Key Word List is not intended as a substitute for the data element dictionaries available for many of the water program information systems, but rather it seeks to provide a broad overview of the types of information available in key water information systems maintained by the Water Program.

Due to space and time constraints, key words are sometimes generalized and can cover numerous related topics. For instance, the key word—Location—might mean latitude/longitude, Section/Township/Range, city, county, and so on. The reader will need to use the profiles to obtain a more precise determination of the types of information within each of the 19 systems. To assist the reader, several of the most general key words have been defined in the footnotes.

Information System Key Word	Drinking Water Reg. Impact Analyses	Drinking Water Supply File	Effluent Guidelines Studies	FRDS	Gage, City, Dam Files	GICS-CG/SRF	Hazardous Waste InjectionWell DB	Industrial Facilities Discharge File	Lists	Needs Survey	ODES	PCS	Reach File	STORET- BIOS	STORET.  Daily Flow	STORET Fish Kill File	STORET Water Quality System	UIC Program Summary System	Waterbody System
<b>Ambient Quality Monitoring</b>			×					×									×		
Analytical Method									×								×		
Aquifer		×		×				×									×		
Biota											×			×		×			
Chemical Substance							×		×		×								
Compliance Monitoring				×						×		×							
Conventional Pollutants			×				×	×	×		×								
Drinking Water	×	×		×															×
Drinking Water Treatment Processes	×	×		×						×									
Enforcement				×			×					×						×	
Effluent Quality Monitoring			×					×		×		*							
Estuary											×		×	×	×	×	×		×
Facility			×				×	×		×	×	×							×
Ground Water		×		×					,								×	×	
Health Effects	×								×										
Hydrology					···-														×
Hydrogeology							×												
Industrial Dischargers			×					×		×	<u> </u>	×							
Inspection				×								×						×	
Lakes								×				×	×	×		×	×		×
Location		×		×	×		×	×		×	×		×	×	×	×			×
Municipal Dischargers (POTWs)						×		×		×	×	×							

FOOTNOTE: In this report, these key words encompass the following types of information:

Biota = fish, macroinvertebrates, invertebrates, algae, and bacteria.

Conventional Pollutants = blochemical oxygen demand, suspended solids, total pH, fecal coliform, and oil and grease as listed in 40 CFR 401.16, pursuant to Section 304 (a) (4) of the Clean Water Act.

Facility = a building, structure, or source that is subject to regulation by EPA.

Inspection = compliance, sampling, multimedia, preoperational, emergency response, mechanical integrity, or enforcement inspection.

Location = site of a facility, pollution source, discharge point, water intake, well, or monitoring point as indicated by address; latitude/longitude; or section, township and range.

### **KEY WORD LIST**

Information System Key Word	Drinking Water Reg. Impact Analyses	Drinking Water Supply Files	Effluent Guidelines Studies	FRDS	Gage, City, Dam Files	GICS-CG/SRF	Hazardous Waste Injection Well DB	Industrial Facilities Discharge File	Lists	Needs Survey	ODES	PCS	Reach File	STORET- BIOS	STORET- Daily Flow	STORET- Fish Kill File	STORET-Water Quality System	UIC Program Summary System	Waterbody System
Nonconventional			×				×	×	×		×								
Pollutants Nonpoint Source			^					-	~	<del>                                     </del>	×		ļ					ļ	×
Oceans					<b></b>						×			1	<u> </u>			<del> </del>	<del>  ~</del>
Permits										-	×	×	<del> </del>		<b>}</b>		<del> </del>	*	┼
Point Source			×					×		<b></b>	×	×			<u> </u>			_	×
Pretreatment Processes											<del>  ^ -</del>	<u> </u>		<del> </del>	<b></b>		<del>                                     </del>	<del>                                     </del>	<del>  ^</del>
Public Water Supplies	×	×		×							<del> </del>							<del> </del>	+-
Regulations		•											<del>                                     </del>						×
Resources (Financial)				×		×				×			<u> </u>				<b>†</b>	×	<del>  ``</del>
Rivers and Streams					×				×			×	×	×	×	×	×		×
Sediment		,						-			×						×		1
Sludge												×							
Sources of Impairment	Î															×			×
Standards/Criteria																			
Station (Sampling)											×			×	×		×	1	
Toxic Pollutants								×	×	×		<u> </u>							
Violation				×	:							×			1			×	×
Wasteload Allocations												×							T
Waste Treatment Processes										×									
Well (Drinking Water)	×	×		×															
Well (Injection)							×											×	$\Box$
Wetlands			×		×		, , ,					×	×	×		×		· · ·	${}^{\dagger}$

FOOTNOTE: In this report, these key words encompass the following types of information:

Nonconventional Pollutants = pollutants not included in the list of conventional pollutants or toxic pollutants.

Resources = grants, revolving loans, FTEs, budgets, and actual program or project expenditures.

Toxic Pollutants = 65 pollutants or classes of pollutants listed as such in 40 CFR 401.15, pursuant to Section 307 (a) (1) of the Clean Water Act. This list of 65 can be disaggregated into 126 individual pollutants.

## Key OW Information System Profiles

#### Introduction

This portion of the compendium consists of a series of two page profiles that describe 19 of the over 100 environmental and program information systems maintained by the U.S. Environmental Protection Agency's Headquarters Water Program. The term "system" is defined as an ordered and comprehensive assemblage of information. Therefore, the 19 systems profiled are not limited to "data bases", but also include non-automated systems and flat files. These 19 systems were most frequently identified during interviews as containing information that would be most useful to water program managers in making program decisions.

During the interviews, program managers emphasized their need to know not only what information is in the system, but also how that information could be useful to them. Therefore, the focus of each profile is on the information in the system. The profile attempts to answer: What information is in the system and how can this information support program decision making? The compendium does not seek to address the mechanics of the information systems.

The profiles consist of two sections: a narrative and a graphic, both of which describe the information and management tools associated with the highlighted system. The graphic representation was added at the request of interviewees who indicated the need for a quick and easy way to determine the types of information available to them.

#### **Profile Narrative**

Each narrative includes the following:

- Description--An opening statement identifying the system, the information it contains, its users, the office that maintains the information system, and the program needs the system was designed to address.
- Information--A discussion about what and how much information is in the system, how complete the information is, how users employ the information, what limitations of the information are important to know, and what linkages to other information systems exist.

### Key OW Information System Profiles

- Information Collection--Information about who provides the information to the system and how often and in what way they provide it, as well as what provisions have been made for information quality.
- Access--Details on how to access the information and availability of training.
- National Manager--The telephone number and organization of the national manager of the information system.

#### **Profile Graphic**

Each system graphic is divided into two parts.

- A listing that identifies the most representative or important information available in the system.
- A listing of the management tools available through the system, such as:
  - -- Statistical applications
  - -- Graphic applications
  - -- Linkages to other information systems

The graphic depicts major categories of information available within the profiled system. In some profiled systems there are a limited number of data elements within the system and they can all be listed. However, for most profiled systems only the most representative or important information available is identified in the graphic. The graphic should be used in conjunction with the system profiles to ensure that potential users are aware of any limitations or other caveats associated with information contained in a given system.

### Key OW Information System Profiles

Drinking Water Regulatory Impact Analyses

Drinking Water Supply File (DWS)

Effluent Guidelines Studies (EFG)

Federal Reporting Data System (FRDS)

Gage, City, and Dam Files (GCD)

Grants Information Control System (GICS-CG/SRF)

Hazardous Waste Injection Well Data Base

Industrial Facilities Discharge File (IFD)

Lists (L)

Needs Survey (NS)

Ocean Data Evaluation System (ODES)

Permit Compliance System (PCS)

Reach File (RF)

**STORET** 

Biological System (BIOS)

Daily Flow System (DFS)

Fish Kill File (FK)

Water Quality System (WQS)

UIC Program Summary System UICS)

Waterbody System (WBS)

### Drinking Water Regulatory Impact Analyses

### **Description**

The Drinking Water Regulatory Impact Analyses (RIA) are a paper collection of studies performed by the Office of Drinking Water in accordance with Executive Order 12291. The Order requires that an analysis of benefits and costs be performed for every major rule to be promulgated by the Public Water System Supervision (PWSS) and Underground Injection Control (UIC) Programs. An RIA provides the EPA Administrator with analyses of the potential costs and benefits of, and alternative approaches to, the regulation of drinking water contaminants and/or injection practices.

### RIA Information

Preliminary or final RIAs have been developed for surface water treatment, lead and copper, volatile organic chemicals, inorganic chemicals, synthetic organic chemicals, and filtration and coliform. As other major PWSS and UIC rules are promulgated (e.g., disinfectants, disinfection by-products, Phase II contaminants, and UIC well classes), more RIAs will be published. Various types of information have been used and are contained in RIAs, including:

Number of entities affected by regulation Monitoring, engineering, and waste disposal costs Population exposed to contaminants Cancer cases resulting from exposure Cancer cases /exposure avoided through regulation

### Information Collection

The information used to assess the costs and benefits of regulations is drawn primarily from existing information collections such as: national surveys – National Inorganic Radionuclides Survey, Community Water Supply Study, Community Water Supply Survey, Rural Water Survey, National Organics Monitoring Survey, and the National Urban Pesticide Applicator Survey; State studies; U.S. Geologic Survey studies – Pesticides in the Nation's Rivers; EPA data bases – the Federal Reporting Data System and STORET; the Agricultural Data Base, DRASTIC, County and City Data Book, the Census of Agriculture, and documents developed for PWSS rules – Occurrence documents and Cost and Technology documents.

#### Access

RIAs are maintained in hard copy format only. They are available to personnel from the National Manager and from EPA Regional Offices. Copies may be ordered, at cost, from the National Technical Information Service (NTIS) at (703) 487-4650 or 1-800-336-4700.

### National Manager

(202) 382-5515

Economic, Policy Analysis, and Data Management Branch

Program Development and Evaluation Division

Office of Drinking Water

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# Drinking Water Regulatory Impact Analyses (DWRIA)

## What Types of Information are in the System?

### Regulatory Impacts

Users can obtain information about the following impacts of regulations:

- Costs
- -- monitoring
- -- engineering
- -- waste/disposal
- -- number of entities affected
- Benefits
  - -- population exposed
- -- adverse health effects resulting from exposure
- -- reduction in population exposed
- -- disease cases avoided

What Management Tools are Available through the System?

#### Reports

Users can obtain analytical reports on:

- Regulatory Alternatives
- Assessment of Costs
- Assessment of Benefits
- Paperwork Reduction Act
- Regulatory Flexibility Act

### Drinking Water Supply File

### **Description**

The Drinking Water Supply (DWS) file is an automated data base developed by the Office of Water Regulations and Standards to identify the locations of Public Water Supplies (PWSs), their intakes, and sources of surface water supplies across the United States. The DWS also contains some information for ground water sources, i.e., wells, but it was designed initially to provide locational information on surface water sources for PWSs serving more than 25,000 persons.

### DWS Information

DWS tracks information about PWS characteristics, sources of water, and PWS intake locations. It contains information for approximately 850 PWSs serving more than 25,000 persons and for approximately 6,800 PWSs serving between 1,000 and 25,000 persons.

Information for PWSs serving more than 25,000 persons includes the PWS name, water source, and intake locations and waterbody names and reach numbers. The plants, intakes, and sources associated with a PWS have a hierarchical relationship. A single PWS may be composed of one or more plants, each having one or more intakes (direct sources), which may have one or more secondary (indirect) sources. As part of the information collection effort, each plant, intake, and secondary source was assigned a unique code.

Information for PWSs serving between 1,000 and 25,000 persons include the same basic information as for the other PWSs, but the information is not as accurate. Source and intake information is often missing and no treatment information is included for these facilities.

The DWS can be linked through the Reach number to other water data bases, including STORET and the Reach file.

### Information Collection

The DWS was first implemented in 1979 - 1980 based on information from the STORET Water Quality System and information collected during the Public Health Service's 1963 inventory of public water supplies. Source names and intake locations for utilities serving more than 25,000 persons were derived from the Federal Reporting Data System (FRDS). Reach numbers for surface water were taken from the Reach File. This information was supplemented and verified by directly contacting each utility serving more than 25,000 persons. Information for utilities serving less than 25,000 persons was derived from topographic maps.

Updates are made as needed and as resources are available to make updates and add new facilities and location coding.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to the DWS file.

### National Manager

(202) 382-7046

Water Quality Analysis Branch

Assessment and Watershed Protection Division Office of Water Regulations and Standards

# Drinking Water Supply File (DWS)

What Types of Information are in the System?

What Management Tools are Available through the System?

### Utilities Serving More Than 25,000 Persons

#### Users can obtain information on:

· City, County, State

Region

Utility Location

· Intake Location

Source Location

· Latitude/Longitude

· Waterbody Names

Reach Numbers

Daily Production

Flow

Well Types

· Well Depths

• Aquifer Code

### Utilities Serving Fewer Than 25,000 Persons

Users can obtain the same basic information as available for utilities serving more than 25,000 persons, but it is much less complete and accurate. No treatment information is available for these smaller systems.

### Reports

### Users can obtain reports on drinking water supplies listed by:

- · State, County
- Flow
- · Reach Number
- · Population Size

### Analytical Tools

Users can employ linkage tools to access STORET and the Reach File.

Office of Water Environmental and Program Information Systems Compendium

### Effluent Guidelines Studies

### **Description**

The Effluent Guidelines Studies (EFG) are a collection of information collected by the Office of Water Regulations and Standards on an industry-by-industry basis to support development of technology-based effluent guidelines, as required by the Clean Water Act. These guidelines are designed to control discharges into waterways resulting from industrial processes. Regulations are set for both direct and indirect dischargers based on a determination of which pollutants can be removed through treatment technology.

### EFG Information

Since 1974, regulations have been developed for approximately 50 industries. Currently, 9 studies are underway, some for new industries, others for industries already regulated and under review. Information collection includes questionnaires covering engineering and economic information on individual plants. The questionnaires are supplemented by sampling and analyses from waste water discharge points, and secondary engineering and economic information. Information collected includes:

Plant name and location	Plant age
Plant size (by production	Types of products/services
and/or employment)	Waste use
Wastewater characteristics	Results of wastewater sampling
Wastewater controls	Costs of wastewater treatment
Treatment technologies	Pollution prevention practices

Because the studies were conducted separately and with different study leaders, there are variations in the information collected from each industry.

### Information Collection

Information is collected on an as-needed basis to develop or revise effluent guidelines on an industry-specific basis. Samples are collected by contractors. Although the basic information collected is generally similar across studies, there is great variation in the particular parameters. Efforts are underway to standardize data definitions and collection and analysis methods. Most information is collected at one time only, although waste water sampling for some industries may include short-term series. Over the last ten years, all sample and analysis information has been managed by a sample control center, where the information is checked for accuracy and consistency.

Linkages to other data bases are possible through NPDES numbers (for direct dischargers).

#### Access

Some questionnaires are maintained in paper form only and may be examined by EPA personnel cleared for confidential business information. Some questionnaire information and sample and analysis information is maintained in data sets on the EPA National Computer Center IBM 3090 or on tapes stored off-site.

### National Manager

(202) 382-7120

Industrial Technology Division

Office of Water Regulations and Standards

# Effluent Guidelines Studies (EGS)

What Types of Information are in the System?

What Management Tools are Available through the System?

#### Sampling Analyses

# Users can obtain the following information about water samples:

- · Sampling Description
  - -- date
  - Aima.
  - -- location
  - -- amount
  - -- method
- · Analysis of Sample
  - -- date
  - -- laboratory
  - -- method
  - -- results

### **Questionnaire Results**

Users can obtain the following information from Effluent Guideline Questionnaires:

- Facility
  - location
  - -- state
  - -- city
  - -- SIC code
  - -- NPDES number
- Economic
  - -- revenues
  - -- production amounts
  - -- number of employees
- Technical
  - -- manufacturing process
  - -- plant diagram
  - -- wastewater treatment

### **Analytical Tools**

Users can employ these statistical tools to analyze effluent guidelines information:

- SAS Data Sets
- · Regression Analyses
- Variance Analyses

Users can also employ linkage tools to access PCS.

Office of Water Environmental and Program Information Systems Compendium

### Federal Reporting Data System

### **Description**

The Federal Reporting Data System (FRDS) is an automated data base for the Public Water System Supervision (PWSS) Program maintained by EPA's Office of Drinking Water. It is a centralized data base designed as a repository for information about Public Water Supplies (PWS) and their compliance with monitoring requirements, maximum contaminant level (MCL) regulations, and other requirements of the Safe Drinking Water Act Amendments (SDWA) of 1986.

### FRDS Information

FRDS contains approximately 12 million records. Information tracked includes:

PWS identification number

Location Treatment

Violations

Variances and exemptions

On-site visits Sources/plants

Enforcement actions

State discretionary information

Historical information

**Population** 

FRDS tracks PWS with both surface water and ground-water sources. FRDS does not track information for private wells or PWSs excluded from coverage by the SDWA.

### Information Collection

The SDWA stipulates that all Public Water Supplies must conduct monitoring, maintain records, and provide compliance and enforcement information to the Agency for it to carry out its responsibilities with respect to the SDWA.

PWS owners and operators are required to report monitoring results to the State (or in non-primacy States or Indian lands, to the Region) at frequencies specified in State and Federal regulations. State (or Regional) enforcement officials are required to assess the monitoring results and submit quarterly reports to EPA Headquarters containing any new information for FRDS. Some States submit FRDS information manually, while others have developed automated data processing systems compatible with FRDS. Regions perform extensive inventory data verification to ensure accuracy.

#### Access

Computer access rights to FRDS are determined by Headquarters, the States and the Regions, which authorize user accounts and passwords. FRDS training is periodically available in both Headquarters and the Regions.

### National Manager

(202) 382-7276 Drinking Water Branch State Programs Division

State Programs Division Office of Drinking Water

# Federal Reporting Data System (FRDS)

## What Types of Information are in the System?

### Users can obtain the following information about PWSs:

· Owners/Operators

Inventory

- -- name(s)
- -- owner type
- addresses
- · Operational Status
- Location (Latitude/Longitude and Section/Township/Range)
- Area the System Serves
  - population served
  - -- county
- · Regulating Entity
- On Site Visits/Surveys
- Additional Information is Entered at Each State's Discretion

### Compliance

#### Users can obtain information on:

- Violations
  - -- type
  - -- contaminant
  - contaminant levels and MCLs
  - -- dates
  - -- link to enforcement actions
- Enforcement Actions
  - -- type
  - -- dates
  - -- link to violations
- Compliance
  - -- SNCS
  - -- non-compliance profile
- Variances/Exemptions

# What Management Tools are Available through the System?

### Reports

### Users can obtain these standard reports:

- · Comprehensive Report
- Service Area and Source Data
- Facilities and Population Served by Primary Water Supply Source
- Distribution of PWSs (by State,Source)
- · Violation by Population
- PWSs Months in Violation
- Annual Data Evaluation/Random Selected Sample Systems
- Violation by Primary Water Supply Source
- · Summary and Violation Date
- · Months in Violation by Date
- Random Selected Systems
- State Follow-up on Significant Noncompliers/Exceptions Report

Customized Reports are also available.

### Analytical Tools

## Users can analyze FRDS information statistically through the use of:

 Frequency Distribution Information that looks at the status of Public Water Supplies across a range of activities.

Office of Water Environmental and Program Information Systems Compendium

### Gage, City, and Dam Files

### **Description**

Three automated data files have been developed by the Office of Water Regulations and Standards to provide additional information for analyses based on the STORET and Reach files. These files maintain information on gaging stations, city names and codes, and dams on waterways. The Gage File provides a common file for gage information to assist those involved with water quality studies, waste load allocations, distribution studies, and advanced waste treatment assessments. The City file provides a comprehensive inventory of U.S. cities. The Dam file provides an inventory of U.S. dams.

### GCD Information

The Gage file contains mean and low flow values for each hydrologically connected reach in EPA's reach file, and every reach in the Reach File 1 has a mean and low flow value associated with it. These values are for 'artificial' gages located at the end of each reach. In addition to the artificial gages, the file contains descriptive information for selected USGS stream gaging stations throughout the U.S. There are approximately 36,000 records in the Gage file. Information includes gage locations and flow and velocity values.

The City file contains location and population information for all U.S. cities. The cities are also linked to nearby water segments. Information includes city name, State and county, latitude and longitude, and population information from the 1960, 1970, and 1980 censuses.

The Dam file contains records for 68,155 dams across the country identified during a 1980 census. These records are for dams greater than 6 feet in height and with maximum water impounding capacities of at least 50 acre-feet, or at least 25 feet high with maximum water impoundment capacities in excess of 15 acre feet. There are an estimated 2 million additional dams that were too small to be included in the census. Information includes the dam locations and characteristics.

### Information Collection

The Gage file was derived from the National Water Data Exchange, the Master Water Data Index, the Basic Characteristics File, and the STORET Daily Flow System, which is in turn supplied by the U.S. Geological Survey. A model was used to assign flows to reaches without gaging stations.

The **Dam** file was derived from the U.S. Army Corps of Engineer's 1980 inventory of dams as part of the National Program of Inspection of Non-Federal Dams.

The City file information was derived from the Post Office (the city number), the Commercial Atlas and Marketing Guide (Rand-McNally), the Federal Information Processing Standards Publication, and the Congressional District Atlas.

All three files can be linked to other data bases through reach numbers.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to these files.

### National Manager

(202) 382-7046

Water Quality Analysis Branch, Monitoring and Data Support Division Office of Water Regulations and Standards

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# Gage, City, and Dam Files (GCD)

## What Types of Information are in the System?

For each of the three topic areas, users can obtain this information:

#### Gage

- · Gage Station ID
- Kind of Data Collected
- Collection Frequency
- Mean and Annual Flow
- Location

- Latitude/Longitude
- Reach Number
- Agency ID
- 7Q10 Low Flow
- City

- City Name
- Latitude/Longitude
- Census Population

- FIPS State-County Numbers
- Stream Names
- · Reach Numbers

#### Dam

- Name
- Impoundment Volume
- Length of Dam Crest
- Power Generating Capacity
- Location

- · Latitude/Longitude
- Reach Number
- Maximum Depth
- Purposes

## What Management Tools are Available through the System?

#### Reports

### Users can obtain these Reports:

- Listings of Gages, Cities, and Dams by Stream Reaches
- Listings of Gages, Cities, and Dams by County and State
- User Selectible Listings of Dam Data

### **Analytical Tools**

### Users can employ linkage tools to access:

- · The Reach File
- STORET Data
- Reach File Statistical and Mapping Tools

Maps can be generated to show State-by-State distributions based on data selected by users.

### Grants Information and Control System--Construction Grants

### **Description**

The Municipal Construction Program's subsystem of the Grants Information and Control System (GICS) tracks the processing of all wastewater treatment grant applications and active construction grant projects funded by the Construction Grant Program authorized by the Clean Water Act. Also tracked is Federal funding provided to each State's State Revolving Fund (SRF) Program authorized by the Water Quality Act of 1987. The largest part of the GICS data base deals with wastewater treatment construction projects, but there is a non-construction grants component of GICS that contains information for many other EPA grants-related programs including State program grants and research grants.

### GICS Information

Construction Grants-GICS contains administrative, financial, technical, and project status information on each construction grant funded by EPA. There are over 113,000 records of construction grants information in GICS, with each record containing 75 nationally required data elements.

Information is organized by a grant number assigned to each project, by State. Linkages to other data bases are possible through the authority/facility (A/F) number to the Needs Survey and the NPDES permit number to PCS.

The State Revolving Fund portion of GICS contains identification and financial information on Capitalization Grants and on SRF projects. Nationally required data elements are used to report on SRF implementation. In addition, States may utilize the SRF GICS State Optional System to enter additional SRF project status information of particular interest to the State and design more detailed customized reports.

### Information Collection

GICS utilizes an on-line menu driven system for data entry. For construction grants information, States (and Regions that operate construction grants programs not delegated to a State) create and then update their individual data files on grants as they are approved or modified. For the State Revolving Fund program, Regions are ultimately responsible for all data entry. In general, Regions enter information related to the State Revolving Fund grants and States enter information related to the SRF funded projects.

Quality assurance is an integral part of GICS. On-line data entry edits are programmed for quality checks during data entry. Audit Reports are system generated for broad scale quality control. Error rates for data entry are generally less than 3% nationwide, as estimated by the quarterly audit reports.

#### Access

Any person with access to the EPA National Computer Center's IBM-3090 computer has access to GICS. In FY 90, training in Natural 2 and Report Writer features is being conducted in the Regional offices so that State and Regional users can design and generate individual, specialized and ad hoc reports.

### National Manager

(202) 382-5831

Program Management Branch Municipal Construction Division Office of Municipal Pollution Control

# Grants Information & Control System Construction Grants/State Revolving Fund (GICS-CG/SRF)

## What Types of Information are in the System?

#### **Construction Grants**

### Users can obtain the following information on:

- Financial Assistance
  - -- grant amount
  - grant amendment amount
  - -- innovative/alternative set aside
  - grant number
- Facility Information
- -- category
- -- permit number
- -- grantee
- Milestones
  - -- award
  - -- audit
  - -- close-out

### State Revolving Fund

### Users can obtain information about:

### Capitalization Grant Which Funds SRF:

- · Identification
- -- grant number
- -- State
- Financial
- -- grant amount
- -- State match

#### **SRF Funded Projects:**

- Identification
- type of project
- -- applicant name
- Financial
- -- type of assistance
- -- loan amount

## What Management Tools are Available through the System?

#### ConstructionGrant Reports

### Users can obtain these Summary reports:

- Information About Financial and Administrative Statistics of Projects Funded by EPA's Construction Grants
- Technical and Project Status for Each Grant

### St.Revolving Fund Reports

### Users can obtain these Summary reports with:

- Grants States have Received from EPA to Capitalize Their SRFs
- SRF Projects per State, Including Funding and Project Identification

# Users can also obtain optional State SRF Reports on the status of:

- Active SRF Projects
- Priority List and Grant and Loan Information

Office of Water Environmental and Program Information Systems Compendium

### Hazardous Waste Injection Well Data Base

### **Description**

The Underground Injection Control Branch maintains an automated inventory of all Class I-Hazardous Waste injection wells as defined by the Safe Drinking Water Act. The system is used to store information that was obtained during a special study to collect information for the 1985 Report to Congress on Injection of Hazardous Waste. The system also provides information on alternative treatment capacity analysis in addition to scheduling which wells are affected by the Resource Conservation and Recovery Act (RCRA).

### HWIWDB Information

The Hazardous Waste Injection Well data base contains detailed information concerning all Class I-Hazardous Waste injection wells. Information in the system includes:

Facility or well owner/operator

Identification and well class codes

Chemical information concerning the injectate

Well construction information

Hydrogeological information about the area where injection occurs

Waste information

RCRA codes and volumes

The data base consists of 322 well records of active, inactive, and abandoned Class I wells. These records also include information on Class I nonhazardous and Class IV wells. Since the completion of the special study, some, but not all, States have elected to update their information.

### Information Collection

The information was originally collected as part of a special study conducted in response to a Congressional request on the Injection of Hazardous Waste into injection wells. EPA obtained the information from States and entered them into a data base on a personal computer for analysis.

Regions are not required to update information in the data base; some do, but others do not. Though there is no ongoing information collection, Regions periodically report and update information. Reports were generated annually for comparison with the Federal UIC Reporting System (FURS) until the use of the latter system was discontinued in fiscal year 1989.

#### Access

The data base is maintained on a PC and is not directly accessible. Users can obtain information from the national manger in disk or report form.

### National Manager

(202) 382-5561

Underground Injection Control Branch

State Programs Division Office of Drinking Water

# Hazardous Waste Injection Well Data Base (HWIWDB)

## What Types of Information are in the System?

#### Inventory

#### Users can obtain information about:

- Injectate
  - -- type
  - -- volume
  - -- chemical composition
  - -- RCRA requirements
- Well Construction
  - -- packers
- -- tubing and casing
- Hydrogeology
  - -- injection zone lithology
  - -- hydraulic parameters
  - -- USDWs in the injection zone
  - -- water quality
- Site Identification
  - owner/operator
  - -- well class
  - -- location (section/township/range)
  - -- identifiers (e.g., RCRA)
  - -- operational status
- Operations
  - -- injection rate, pressure
  - -- inspection frequency
- -- dates of inspection
- Enforcement and Compliance Summaries

## What Management Tools are Available through the System?

#### Reports

### Users can obtain standard reports on:

- · General Well Information
- Report to Congress on Hazardous Waste Injection Wells
- Alternative Treatment Capacity Analyses
- · Land Band Effective Dates

Users can also obtain ad hoc reports on specific areas of interest.

### **Analytical Tools**

### Users can employ linkage tools to access:

 Flow and Transport Models for analyzing HWIWDB's hydrogeologic data.

Users can also reference the following studies on hazardous waste injection wells, whose results, in part, were supported by data from HWIWDB:

- Engineering Studies
- Regulatory Impact Analyses

### Industrial Facilities Discharge File

### **Description**

The Industrial Facilities Discharge (IFD) File is an automated data base of industrial point source dischargers to surface waters in the United States. The IFD was created specifically to provide the Office of Water Regulations and Standards with a comprehensive data base of industrial point source dischargers.

### IFD Information

The IFD contains approximately 120,000 records. The IFD has three basic kinds of information: facility, direct discharge, and indirect discharge facilities. Facility information includes site identification codes and summary effluent discharge information. Discharge information includes the components of individual discharges, including location, flow, and Standard Industrial Code (SIC). Nearly half of the direct dischargers tracked are POTWs. Indirect discharger information is for industrial flows from industries that discharge to other facilities, such as POTWs, rather than directly to surface waters.

In addition, the IFD contains information for Superfund sites on the National Priority List. This information includes the location name, State and county codes, latitude and longitude coordinates, reach number, and the mileage offset within the reach (i.e., the distance of site from the reach's end point).

The IFD can be used for regulatory impact analyses, best available technology studies, regulation development, and special projects.

Linkages to other data bases, such as PCS and STORET can be made through Reach numbers, and NPDES permit numbers. In addition, cross references to outside data bases, such as CETIS (Complex Effluent Toxicity Information System) and the Organic Chemical Producers Data Base, have been built into IFD.

### Information Collection

IFD information is derived from several sources. The Permit Compliance System (PCS) was used to identify NPDES permitted facilities to be included in IFD; general information about each facility was extracted from PCS to form the basis of the IFD. The actual NPDES permits from EPA Regional Offices provided discharge and location information for both direct and indirect point source dischargers. In addition, various States and local agencies provided additional and more recent information not found in the Regional NPDES files. The Needs Survey data base provided information on POTW identified by a NPDES number. When a new NPDES number is issued, the facility is added to the IFD. Otherwise, users may use an interactive program to report discovered gaps or errors, which are reviewed and added to IFD weekly.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to the IFD.

### National Manager

(202) 382-7046

Water Quality Analysis Branch

Monitoring and Data Support Division
Office of Water Regulations and Standards

# Industrial Facilities Discharge File (IFD)

## What Types of Information are in the System?

## What Management Tools are Available through the System?

#### Industrial Facilities

### Users can obtain the following Information about Facilities:

- Identification
  - -- NPDES number
  - -- name
  - -- address
  - -- Dunn & Bradstreet number
- Location
  - -- latitude/longitude
  - -- stream, waterbody
  - -- reach number
  - state
  - -- county
  - -- city

### Industrial Facilities Discharges

### Users can obtain the following information about Discharges:

#### **Direct and Indirect Discharges**

- Facility
- · Pipe Number
- Discharge Type
- SIC Code
- Flow
- Receiving Water
- Latitude/Longitude

### Analytical Tools

### Users can employ linkage tools to access:

- PCS
- STORET
- · Gage File
- · Needs Survey
- Complex Effluent Toxicity Information System (CETIS)
- Organic Chemical Producers Data Base (Industry Data Base)

Office of Water Environmental and Program Information Systems Compendium

### Lists

### **Description**

Lists is an automated inventory of information about chemical substances regulated by EPA; it cross-references the substances, the Agency lists on which the substances appear, and the analytical methods commonly used to identify the substances. Lists was developed by the Office of Water Regulations and Standards in response to a need for a single source of chemical lists and a data base cataloguing standard EPA analytical methods.

### Lists Information

The Lists data base contains information on 1,716 regulated analytes that are identified on 26 statutorily mandated lists and office-based lists, and 150 analytical methods. Lists include the Priority Pollutant List, the RCRA Appendix VIII and IX lists, and the SARA Section 110 and 313 Lists. The system includes information on method availability and method source, by analyte and across media and regulatory programs.

Information tracked for each analyte includes its CAS number, names and synonyms, its physical properties, and the analytic methods used to identify the substance.

Information tracked for methods includes their origin, the instrumentation needed, and the detection limit for specific substances.

Information tracked for lists includes list name, source, Office responsible, chemicals on the list, and any reportable quantities associated with the substances.

Linkages to other data bases are theoretically possible, although no such linkages have been implemented. The CAS number is a unique chemical substance identifier used by many other chemical related data bases and could serve as the link between the Lists and other systems.

### Information Collection

The first Lists was developed in 1985 and has been updated (most recently in 1988) as new lists have been promulgated and new substances have been regulated. The chemical and methods information has been checked by chemists working at the Sample Control Center for accuracy (including all CAS numbers and compound names).

#### Access

Users may obtain lists of information by requesting reports or acquiring a copy of the data base to install on their IBM or compatible PCs from the National Manager.

### National Manager

(703) 557-5040

Sample Control Center

**Industrial Technology Division** 

Office of Water Regulations and Standards

#### Lists **What Management Tools are Available** What Types of Information are in the through the System? System? Reports **Analytical Tools** Users can obtain information about: **Analytes** Users can obtain reports Users can load listed by: information from Chemical Name Synonyms Lists on other CAS Number and Base Analytical Methods CAS Number computers for further **Physical Properties** Source of Standard analysis or use. **EPA/NIH Spectral File Reference** Name Base CAS Number Methods Users can conduct Apparatus and Method searches for Method and Apparatus chemical data on any Origin EPA Method Number field or category Matrix or Fraction Instrumentation Origin and Sequence across the chemical **Detection Limit** lists included in Lists. Organization Lists List Name Source Responsible Office Substances Reportable Quantity Office of Water Environmental and Program Information Systems Compendium

### Needs Survey

### **Description**

The Needs Survey is an automated inventory, maintained by the Office of Municipal Pollution Control (OMPC) of all existing or proposed publicly owned treatment works (POTWs) that need construction or renovation to meet the requirements of the Clean Water Act. Files of past surveys are also available in the Needs Survey data base.

### Needs Information

The official 1990 Needs Survey data base contains 24,153 records, each of which includes over 230 data elements organized by 19 subject areas. Among the information included is:

Location and characteristics of POTWs
Construction cost estimates and how they were documented
Populations served by collection and treatment
Flow capacity
Effluent characteristics
Treatment processes

The Needs Survey's authority/facility (A/F) number allows linkages to the Grants Information Control System; the National Pollutant Discharge Elimination System number to the Permits Compliance System and the Industrial Facilities Data Base; and the reach number to the Reach File.

### Information Collection

The information in the Needs Survey File is collected and/or updated every two years from each State, in order to compile the biennial Needs Survey Report to Congress. The File contains the final survey information from 1984, 1986, 1988, and 1990. In order to record new or updated information about facilities in the file, facility fact sheets are sent out for each collection effort containing information from the previous survey. States use these fact sheets and the current Needs Survey Guidance to complete their new surveys.

#### Access

All past Needs Survey files are open to the public. Current Needs Survey information is only accessible to authorized EPA and State users. Anyone having a valid user ID and password may access the past needs survey files. Access to the data base is through the Review, Update, and QUery System (RUQUS).

### National Manager

(202) 382-7251

Needs and Priorities Branch Municipal Facilities Division

Office of Municipal Pollution Control

### **Needs Survey (NS)**

## What Types of Information are in the System?

### Publicly Owned Treatment Works (POTW)

Users can obtain information about POTW sites, financing, and treatment:

- · Facility Name and Location
- · Facility Description
- Documentation of Needs
- · Population Served
- Wastewater Flow
- · Chemical Composition of Effluent
  - -- concentration of pollutants
  - -- presence of toxics
- Unit Process
- Receiving Water
- · Compliance Schedule and Record
- · EPA Needs Dollar Estimates
- · Grant/Loan Deduction
- · State Needs Dollar Estimates

What Management Tools are Available through the System?

#### Reports

#### Users can obtain these summary reports:

- Needs/Grants Information Data by Authority/Facility Number
- · Facility Fact Sheet
- Facility Listing by City/State/County
- · Flow and Effluent Characteristics
- Facility Funding Category Needs
- Flow, Population, and Treatment Process by Facility/Authority Name

#### Ocean Data Evaluation System

#### Description

The Ocean Data Evaluation System (ODES) is an automated data base, maintained by the Office of Marine and Estuarine Protection, supporting Federal, State, and local decision-makers associated with marine monitoring programs. The data base was designed in 1985 specifically to support managers and analysts in meeting regulatory objectives through the evaluation of marine monitoring information.

## ODES Information

ODES contains over two million records from a wide range of EPA programs including the 301(h) sewage discharge program, the National Pollutant Discharge Elimination System (NPDES) program, the 403(c) program, the ocean dumping, program, and the National Estuary Program. Records pertain to:

Water quality Physical/chemical characteristics

Oceanographic descriptions Biological characteristics

Sediment pollutants Estuary information

Mapping tools provide a means of examining spatial relationships between pollutant sources, important resources, geographic features and sampling station location. Plotting tools show spatial and temporal relationships between measurements of selected variables.

EPA uses information as a basis for permit compliance determinations, permit reissuance decisions, impact assessment and evaluation, and evaluation of monitoring program designs. Currently, there are no electronic linkages to other EPA systems, although a link to STORET is being developed.

## Information Collection

Publicly owned treatment works (POTWs) submit information quarterly to EPA. Information submitted to ODES is compatible and in accordance with coding schemes and standard formats for marine data developed by the National Oceanographic Data Center (NODC). Before entering the system, information is verified with a multi-step set of review and evaluation procedures.

#### Access

The ODES Manager can provide access by issuing a valid User ID, password, and account for the EPA National Computer Center IBM-3090 computer.

#### National Manager

(202) 475-7119

Marine Operations Division

Office of Marine and Estuarine Protection

# Ocean Data Evaluation System (ODES)

What Types of Information are in the System?

#### Program/Historical Data

## Users can obtain the following information about:

- Facilities
- -- name
- -- location
- -- processes
- · NPDES Permits/Applications
  - -- permit number
  - -- application data
  - -- EPA Region
- Monitoring Plans
  - -- data types
  - -- frequency of collection
  - -- permit limits
  - Ongoing data collection activities
  - Archive Information at the National Oceanographic Data Center (Department of Commerce)

## through the System?

**What Management Tools are Available** 

## Users can obtain reports providing:

Reports

- · Monitoring Results
- Program Information
- · Frequency of Results

#### Analytical Tools

### Users can employ statistical tools to conduct:

- · Univariate Analyses
- Multivariate Analyses
- Correlation and Regression Analyses

## Users can also employ graphics tools to conduct:

- · X-Y Plots
- Bar Charts
- Mapping

Models are available to undertake additional analysis.

Office of Water Environmental and Program Information Systems Compendium

### Users can obtain information about:

- The Prescale Effluent Priority
  Pollutant
- · Water Quality
- · Benthic Surveys
- · Fish Histopathology
- · Bioaccumulation Results
- · Trawl, Seine Sampling
- Bioassay Results
- · Bacterial, Viral
- Sediment Contamination
- · Sediment Grain Size

#### Permit Compliance System

#### **Description**

The Permit Compliance System (PCS) is an automated information management system maintained by the Office of Water Enforcement and Permits, to track the permit, compliance, and enforcement status of facilities regulated by the National Pollutant Discharge Elimination System (NPDES) Program under the Clean Water Act. PCS is designed to support the NPDES program at the State, Regional, and National levels.

## PCS Information

PCS tracks information about wastewater treatment facilities discharging into navigable waters. Items tracked include:

Facility characteristics

Permit conditions

Discharge Characteristics

Inspections

Compliance schedules

Enforcement actions

The NPDES Program and the PCS information it collects distinguishes between major and minor wastewater treatment facilities, based on the potential threat to human health or the environment. Factors determining a facility's classification include the discharge amount per day, the wastewater sources, and the population affected by the discharge.

Although all major and minor facilities must be permitted, only major facilities must provide complete records to PCS. These currently number around 7,100. PCS also contains substantial information collected from States and Regions submitting information for the approximately 56,300 minor facilities in the United States. The collection of latitude/longitude (end of pipe) location information is now under way.

The NPDES permit number allows linkages to IFD, the Needs Survey, and GICS.

## Information Collection

Facilities report their compliance and status information by submitting Compliance Schedule Reports and Discharge Monitoring Reports (DMR) to Regions or delegated States, which enter the information into PCS. Inspection and enforcement information is collected and entered by Regions and/or delegated States.

#### Access

Computer access to PCS is determined by the States and Regions and EPA Headquarters, which authorize user accounts and passwords. Plans are underway to allow general access to all PCS information, except enforcement and other sensitive information. PCS training is available from EPA Headquarters and Regional staff.

#### National Manager

(202) 475-8313

Compliance Information and Evaluation Branch

**Enforcement Division** 

Office of Water Enforcement and Permits

## Permit Compliance System (PCS)

What Types of Information are in the System?

## What Management Tools are Available through the System?

#### Permit Related

### Users can obtain information about:

- Permitted Facility
  - name
  - -- location
  - -- classification
- Parameter Limits
  - monitoring requirements
  - -- quantity
  - -- concentration
- Permit Event
  - -- date and type
- Compliance Schedule
  - -- milestone events
  - -- scheduled dates
  - -- achieved dates

#### Compliance Related

### Users can obtain information about:

- Compliance Schedule Violations
  - -- date
  - -- event
- Evidentiary Hearing
- Inspections
  - -- date and type
- Enforcement Actions
  - -- date and type
  - -- violation types
- Outfall Pipes
  - -- pipe description
  - -- effluent waste type
  - -- treatment type
- Measurement Violations of Parameter Limits
  - -- type
- -- actual measurement values
- Pretreatment Compliance Inspection/Audit
- Pretreatment Performance Summary

#### Reports

### Users can obtain these standard reports:

- Facility
- Compliance Forecast
- Compliance Forecast with Violations
- Limitation Summary
- Limitation Summary with Measurement Violations
- DMR administrative, summary and forecast Reports
- Quarterly Noncompliance Report (QNCR)
- Moving Base
- Violations Recognition
- Industrial User Compliance
- POTW Implementation Compliance
- POTW Enforcement Action Summary
- Ad Hoc Reports (Quick Look, Milestone, and Preformatted)

#### Analytical Tools

## Users can employ these graphical and statistical tools to analyze the data:

- Management Graphics
  Package (Capable of
  producing five types of
  graphs. For example, a bar
  chart showing the number of
  permits issued in each
  Region could be produced.)
- PCS Effluent Data Statistics (Statistical Analysis with Optional Graphics)

Users are also able to employ a PCS/STORET Interface to link the systems and support additional analysis.

Office of Water Environmental and Program Information Systems Compendium

#### Reach File

#### **Description**

The Reach File is an automated data base of surface water features developed by the Office of Water Regulations and Standards; it identifies all streams, lakes, reservoirs, coastlines, and estuaries in the United States. Each of these is divided into segments called 'reaches'. Reaches reference each other, so it is possible to hydrologically traverse the nation's rivers and open waters while scanning other data bases for information associated with any reach along the traversal path. This is the foundation of EPA's ability to integrate information from other data bases in hydrological order and in common by river mile relationships.

#### Reach Information

The Reach File is currently in its third generation. Reach File 1 was created in 1982 and contained information for 68,000 reaches, covering approximately 700,000 miles of streams. Reach File 2, implemented in 1988, added new reaches, doubling the number of streams in the file. RF3, currently under way, will result in data files for 3 million reaches, with 93 million associated coordinates.

Each of the reaches in the Reach File is uniquely identified by a sixteen digit reach number. The following kinds of information are maintained for each reach:

Hydrologic Structure Reach name, type, length, up

and down stream connections,

State and county.

Reach Trace Latitude/Longitude coordinates

along reaches.

Open Waterbody Characteristics Description of whole

waterbodies (e.g., ponds, bays, reservoirs), including surface

area and depth.

## Information Collection

The information in Reach File 1 was based on NOAA aeronautical charts, which provided line traces that were scanned into the data base. Cataloguing Unit boundaries from the United States Geological Survey were added to the traces.

Reach File 2's information was based on Reach File 1, with additions from the USGS Geographic Names Information System (GNIS) data base.

Reach File 3, now under development, is based on the two earlier Reach Files, with additional information from the USGS. This new information includes cataloguing unit boundaries, new names from GNIS, and scale digital line graph data to add precision. All information has been verified to the extent possible by OWRS.

Reach numbers are used in a number of other water data bases, allowing linkages to the Reach Files.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to the Reach File.

#### National Manager

(202) 382-7046

Water Quality Analysis Branch

#### Reach File (RF)

## What Types of Information are in the System?

#### Users can obtain the following information about:

#### **Hydrologic Units**

- Reach Name
- Length
- Downstream Connection
- Cataloguing Unit

- · Segment Number
- Upstream Connection
- · Location (City, County)
- · Segment Type

#### Reach Traces

Reach Number

- · Coordinate Pairs Count
- Latitude and Longitude Coordinates

#### **Open Waterbody Characteristics**

- Name
- Connections
- Depth

- Type
- Surface Area
- · State, County
- · Latitude/Longitude of Shoreline Trace

## What Management Tools are Available through the System?

#### Reports

### Users can obtain these Reports:

**Reach File Directory Options** 

After a 'directory' option has been created by the user through the Reach File Management System, reports that can be generated include:

- · Alphabetic, by State
- · Numeric, by Cataloguing Unit
- Hydrologic Upstream to Downstream

#### Analytical Tools

#### Users can employ the Reach File Management System (RFMS) to:

- · Access Reach Files 1 and 2
- Create Directories of Reach Data
- Match Sites and Reaches
- Copy Information to Tapes

#### Mapping and Data Display Manager tools are available to:

- Create Color and Black:White Maps
- Incorporate Data from STORET - WQS, IFD, and Gage, City, Dam File

### Users can employ linkage tools to access:

- STORET
- IFD
- · Waterbody System

Office of Water Environmental and Program Information Systems Compendium

#### STORET

#### **Description**

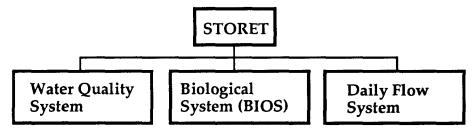
STORET (STOrage and RETrieval of U.S. waterways parametric data) is one of the oldest and largest water information systems currently in use. In conjunction with the Reach file, STORET forms the basis for many other water information systems.

STORET was first developed by the U.S. Public Health Service in 1964 to collect and disseminate basic information on chemical, physical, and biological water quality of the Nation's waters. In 1966, STORET moved to the Department of the Interior, where it remained until 1970, when EPA was given responsibility for maintaining the system. Today, STORET is jointly maintained by EPA's Office of Information Resources Management and the Office of Water Regulations and Standards.

STORET stores information on ambient, intensive survey, effluent, and biological water quality monitoring information.

## STORET Information

Although most STORET information has been added since 1975, records go back to 1899. Information is contributed by a number of organizations, including Federal, State, and Interstate agencies. Each organization is responsible for the information it submits to STORET; STORET is a user owned system. There are currently about 800 organizations that have submitted information to STORET. There are over 700,000 sampling stations in STORET and more than 150 million parametric observations covering some 11,000 water quality parameters. STORET has three main information areas:



The Fish Kill File, although listed separately, also comes under the STORET umbrella. These information areas are profiled on the following pages.

## Information Collection

New information is submitted daily by the users. Actual updates to STORET data files are made once each week. States submitting information follow quality assurance and control procedures as specified in Section 106 of the CWA. Information is checked for reasonableness when added to the system, but users are largely free to define the information they submit.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to STORET. Although Agencies may lock their STORET information, almost all information is available to all users.

#### National Manager

(202) 382-7046 / 1-800-424-9067 Water Quality Analysis Branch

#### STORET - Biological System

#### Description

The Biological System (BIOS) is an automated component of STORET, developed by the Office of Water Regulations and Standards, that contains information on the distribution, abundance, and physical condition of aquatic organisms in waters within and contiguous to the United States, as well as descriptions of their habitats. BIOS was developed to provide a central repository for biological information and analytical tools for data analyses.

#### BIOS Information

The BIOS data structure is similar to the STORET Water Quality System\_(WQS), with two basic kinds of information: the sites (or stations) where information is collected and the samples collected at these sites. BIOS information is collected at sampling locations called stations, which have several identifiers, including:

Agency code
USGS Hydrologic Unit code
State and county code
EPA Basin code
Latitude and longitude
EPA Eco-region
Narrative description

For each station, information from one or more sampling events is recorded. Sampling events are identified as belonging to a particular survey, which may include sampling events from more than one station. Each sampling event is further identified by a date and identifier. The sampling gear used may also be identified. The sampling environment may also be included: meteorological conditions, physical and chemical water conditions, and descriptions of the habitat. For each sample, a complete record of the observed biota is stored. Minimally, information will include the taxonomic identities and counts of observed organisms.

BIOS information can be linked to WQS and PCS. BIOS also links to a taxonomic nomenclature file maintained by the National Oceanographic and Atmospheric Administration (NOAA).

## Information Collection

Several organizations submit information to BIOS, including: Federal Agencies such as EPA; State, Interstate, and International agencies. New information is submitted daily by the users. Actual updates to BIOS data files are made once each week.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to BIOS. Although Agencies may lock their STORET information, almost all information is available to all users. To add or change information, you must have a special Agency ID and password; Agencies may change only their own information.

#### National Manager

(202) 382-7046 / 1-800-424-9067 Water Quality Analysis Branch

# STORET - Biological System (BIOS)

## What Types of Information are in the System?

## What Management Tools are Available through the System?

#### Sampling Stations

# Users can obtain this information about the sites where samples are collected:

- Collecting Agency
- · Station ID
- Location
  - -- latitude/longitude
  - -- state
  - -- county
- Hydrology
- Description
- Station Type

#### Sampling

## Users can obtain the following information about Samples:

- Sample Collection
- -- date
- -- time
- -- depth
- -- environment
- Sample (Monitoring) Equipment
- Species Counts

#### Reports

## Users can obtain these Reports:

- Text
- -- site information
- -- site data
- -- tables of species counts
- Graphic
  - -- map of selected area, with user selectible overlays
  - -- graph of site number vs. site data
- Rapid Bioassessments

#### Analytical Tools

### Users can use statistical tools for:

- Generating Summaries
- Plotting
- Formatting for use with SAS, dBase, LOTUS, Other Mainframes

## Users can also employ linkage tools to access:

- STORET WQS
- · Reach File 1

Office of Water Environmental and Program Information Systems Compendium

#### STORET - Daily Flow System

#### **Description**

The STORET Daily Flow System (DFS), an automated data base maintained by the Office of Water Regulations and Standards, contains daily observations of stream flow and miscellaneous water quality parameters collected at gaging stations belonging to the U.S. Geological Survey's national network. The DFS contains essentially the same information as the U.S. Geological Survey's Daily Values File; the DFS provides an alternative source for the information and simplifies linkages to other, non-USGS water data bases.

#### DFS Information

The System contains more than 695,000 records, each representing a single water year's worth of information, for over 29,585 gaging sites.

The System is composed of approximately 85% stream flow information, indicating the quantity of water flowing past the gaging sites (cubic feet per second). The remaining 15% of the information consists of water level and water quality measurements, including:

Temperature

Conductivity

Dissolved oxygen

pН

Chloride

Suspended sediment

Uses of Daily Flow System information include reviewing NPDES permits, conducting regulatory impact analyses (RIA), developing water monitoring strategies, and analyzing waste load allocations, where the flow information is used to compute loadings. The computation of loadings allows users to convert water quality measurements, i.e., concentrations, to quantitative measurements, e.g., pounds per day.

DFS information can be linked to information in the other STORET sub-systems through Reach numbers.

## Information Collection

The EPA receives new information for the System from the US Geological Survey's Daily Values File twice each year, usually in April and October, at which time the information is merged into the daily flow system and made available to users.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to the Daily Flow System.

#### National Manager

(202) 382-7046 / 1-800-424-9067 Water Quality Analysis Branch

#### **STORET - Daily Flow System** (DFS) **What Management Tools are Available** What Types of Information are in the through the System? System? Analytical Tools Flow Parameters Reports **Gaging Stations** Users can obtain this Users can obtain the Users can employ these Users can obtain these information about following information statistical tools to Reports: **Gaging Stations:** from Gaging Stations analyze flow information: Readings: Summary by Station Collecting Agency SAS Data Sets Flow Sample Raw Data by Station Collecting Station ID -- date Mapping -- time Flow Analysis by Station, Location -- flow rate Including Tables, Statistics, and -- latitude/longitude -- state Users can also employ Water Quality Data at a -- county Limited Number of Stations linkage tools to: -- pH Description of Site temperature Merge Flow Data with -- conductivity STORET-WQS Data Station Type Download to Other Water System Mainframes

#### STORET - Fish Kill File

#### **Description**

The Fish Kill File is an automated component of STORET, developed by the Office of Water Regulations and Standards, that tracks fish kills caused by pollution that have occurred throughout the United States. The kills are a result of a variety of industrial, municipal, agricultural, and transportation related operations. The Fish Kill File was first implemented in 1960 by the Public Health Service under the authority of the Federal Water Pollution Control Act.

The intent of the Fish Kill File is to secure information about the effects of pollutants discharged to surface waters on fish. The principal objective is to allow EPA and States to determine the causes of fish kills and to place responsibility when kills are caused by man-made pollution.

## Fish Kill Information

The Fish Kill File includes information describing the location and circumstances of the kill, total number of fish killed, and the number of each species that died. Beginning in 1960, and ending in mid-1990, when information collection was discontinued, Fish Kill information includes:

Primary land use surrounding the kill site Cause of the kill
Pollutants identified at site
Sources of the pollutants

Users can retrieve information from the file by State, county, city, basin, period of record, and pollution cause code. The system can also generate standard reports.

## Information Collection

Information submission is voluntary. Most States submit information on fish kills. The EPA provides States with a post card reporting form that States fill out and submit when fish kills occur. Forms are submitted as States collect information, which may be on a monthly, quarterly, or yearly basis. Some States report fish kills immediately after they occur. During the 1970s, as many as 800 incidents were reported each year; since then, the number of reports has declined.

Because reporting is voluntary, it is probable that numerous kills go unnoticed or unreported, and some significantly large kills are not included due to lack of sufficient information to determine if the kills were caused by pollution or were due to natural causes. Linkages to other systems are theoretically possible through the reach number associated with a fish kill site, but information is not always reported.

#### Access

Information from 1960 through 1986 is maintained in an electronic file accessible through the STORET umbrella, so any person with access to the EPA National Computer Center IBM-3090 computer has access to this information. Information collected since 1986 is available only in paper format; users may obtain this information by request from the national manager.

#### National Manager

(202) 382-7017 Monitoring Branch

#### STORET - Fish Kill File (FK) **What Management Tools are Available** What Types of Information are in the through the System? System? Reports Location of Fish Kill Fish Kills Users can obtain the Users can obtain the Users can obtain reports on Fish following information following information Kills sorted by: about Fish Kill about Fish Kills: State, County, City Locations: Number of Fish Killed Year or Period · Waterbody Name · Severity of Kill Pollution Cause Waterbody Type Duration · Longitude/Latitude Geographic Extent Reach Number Species Affected USGS Number Primary Land Use in Area Site History Proximate to Fish Kill Cause of Kill Pollutants · Source of Pollutants Office of Water Environmental and Program Information Systems Compendium

#### STORET - Water Quality System

#### **Description**

The STORET Water Quality System (WQS), the main component of STORET, is an automated system, maintained by the Office of Water Regulations and Standards in close cooperation with the Office of Information Resources Management. It contains chemical and physical information obtained during monitoring of waterways within and contiguous to the United States. This includes information for estuaries, streams, lakes, rivers, ground water, canals, and coastal and international waters. Additionally, STORET contains some information on sediment and fish tissue samples. WQS was first developed by the U.S. Public Health Service in 1964 to collect and disseminate basic information on chemical, physical, and biological water quality of the Nation's waters.

#### WQS Information

The Water Quality System is composed of two basic kinds of information: the sites (or stations) where information is collected and the samples collected at these sites. There are currently nearly 700,000 stations, over 300 of which are unique collection points for ground-water data. Station information includes:

Station type State and county/EPA Basin code

Latitude/longitude Reach number
USGS Hydrologic Unit Narrative description

The information on sampling reports where, when, and how samples were collected, the parameter(s) tested for, and the testing results. The analyses report ambient water quality and effluent chemistry. There are currently ~25 million sample records and ~150 million analysis records. WQS information can be linked to PCS, BIOS, and other water data bases through Reach numbers.

## Information Collection

Information is collected, coded, and submitted by State, EPA, and other Federal Agencies with monitoring programs, as well as contractors, universities, and individuals. Providers and users of information are called Agencies, and each is provided an account. Information providers submit information and EPA updates the data base as information becomes available. Information from the U.S. Geological Survey's WATSTORE (WATer STOrage and REtrieval system) is transferred to STORET periodically. Recent changes have provided special measures to facilitate the user's retrieval of ground-water information.

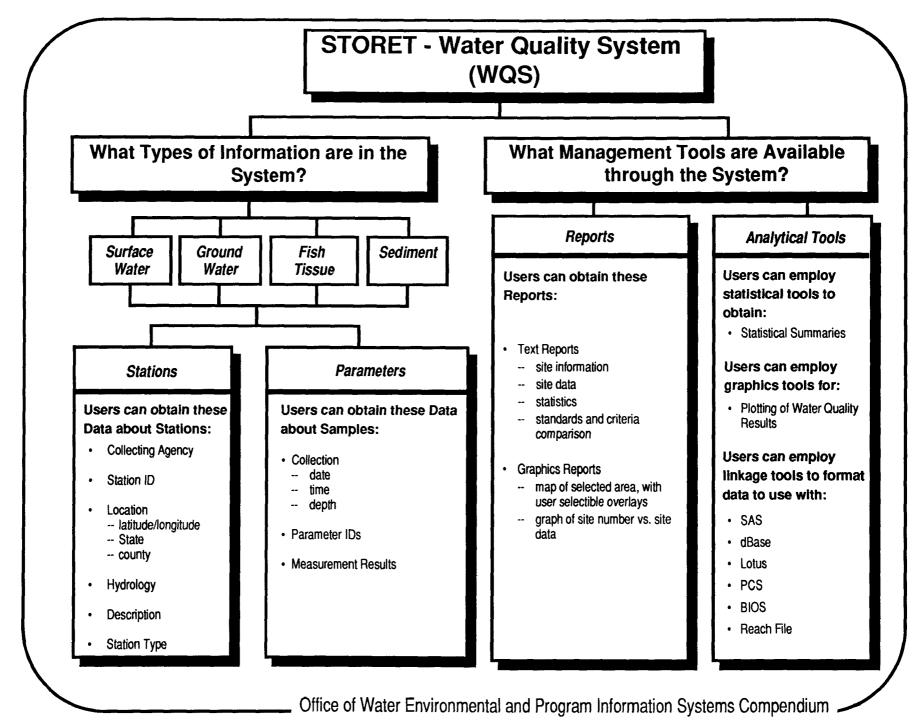
Each Agency submits its own information, which is submitted to basic tests of reasonableness (e.g., that results for parameter tests fall within the possible range) as it is added to WQS. EPA guidelines exist for data definition and quality. They are optional, but EPA strongly encourages their use.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to WQS. Although Agencies may lock their STORET information, almost all information is available to the public. To add or change information, you must have a special Agency ID and password; Agencies may change only their own information.

#### National Manager

(202) 382-7046 / 1-800-424-9067 Water Quality Analysis Branch



### UIC Program Summary System

#### **Description**

The Underground Injection Control (UIC) Program Summary System is a personal computer-based (PC) system, maintained by the Office of Drinking Water, that stores and processes information concerning basic inspection, permitting, violation, and enforcement in UIC program activities reported by Regions and States. It was designed to support Headquarters oversight of State and Regional UIC programs.

#### UIC Summary System Information

The UIC Program Summary System contains complete summary information for all State UIC programs (whether administered by the States or an EPA Region). Among the types of information in the data base are:

Permit determination Violation identification Field inspections & testing Permit issuance Enforcement actions Grant utilization

Well inventory

The system also contains detailed information from the Exceptions List Report that shows wells in significant non-compliance (SNC) not addressed by an enforcement action within 90 days. EPA uses the summary information to track wells reported as significant non-compliers for two or more consecutive quarters that have not been subject to formal enforcement action or returned to compliance.

The system produces a report of quarterly Regional and State totals and submits the information to OMSE for its submission to the Strategic Targeted Activities for Results System (STARS). No automated links to other data bases are provided, but the information may be transferred to Lotus 1-2-3 for use in resource allocation.

Summary information on wells cannot be linked to individual wells.

## Information Collection

Each primacy State and each Region that directly implements a UIC program in a State submit program information quarterly on EPA 7520 information collection forms. The Program Management and Evaluation Section enters the information from the forms and checks it for accuracy.

Access

The UIC Program Summary System can not be accessed directly. The National Manager will provide reports on request.

National Manager

(202) 382-5542

Underground Injection Control Branch

State Programs Division Office of Drinking Water

### UIC Program Summary System (UICS)

## What Types of Information are in the System?

#### **Program Activity**

### Users can obtain information about:

- Permit Determination and Issuance
  - -- permit applications
  - -- permits issued, modified
- Violation Identification and Enforcement Actions (Total and SNCs)
  - -- violations (types, number)
  - -- enforcement actions (types, number)
  - -- USDW contamination
  - -- number of wells returned to compliance
- Mechanical Integrity Tests and Field Inspections
  - -- inspections (types, number)
  - -- test results
  - remedial actions (number, types)

#### **Grant Resources**

### Users can obtain information about:

- Grant Utilization
  - -- expenditures by object class
  - -- expenditures by program element

## What Management Tools are Available through the System?

#### Reports

#### Users can obtain these reports:

**Exceptions List** 

Measures of various program activities by State and Region

- Permit Determination
- Mechanical Integrity
- · Field Inspection
- Compliance/Enforcement Actions
- Remedial Actions
- · State Inventory of Wells
- Indian Land Inventory of Wells

#### Analytical Tools

Users can employ statistical and graphic tools to analyze UIC wells and obtain:

- Statistical Summaries
- Graphic Plottings

Office of Water Environmental and Program Information Systems Compendium

#### The Waterbody System

#### Description

The Waterbody System (WBS) is an automated data base of State water quality assessment information maintained by the Office of Water Regulations and Standards. WBS facilitates collection, storage, retrieval, and analysis of water quality assessment information collected by the States to meet the Agency's Congressional reporting requirements under §305(b) of the Clean Water Act.

#### WBS Information

The WBS contains information that helps program managers report accurately and quickly on the water quality status of a particular water body. It may also be used to target resource expenditures and to set surface water program priorities.

Waterbody identification

Assessment information

Water quality status

Causes of impairment

Sources of impairment

Under the Clean Water Act, States submit information to EPA on several types of surface waters affected by point or nonpoint source pollution, lakes monitored under the Clean Lakes Program, and surface waters requiring the assigning of total maximum daily loads limits to restore or maintain their water quality.

The Waterbody System serves as an inventory of each State's navigable waters that have been assessed for water quality and is used as the basis for the 305(b) report to Congress every two years. States assemble available monitoring information and make judgements on water quality before summary information can be entered into the system. WBS stores the components and the results of the assessment. The WBS is not designed to store, manipulate, or analyze raw monitoring data.

The WBS has linkages to the EPA Reach File and STORET via Reach numbers. Also, the NPDES number links facilities reported in the WBS to IFD and PCS.

## Information Collection

The Clean Water Act requires each State, territory, and interstate commission to develop a program to monitor the quality of its water and to prepare a report every two years describing the status of water quality. The information is collected and entered into WBS by the States, territories and interstate commissions. This information is submitted to EPA every two years to update the National data base.

#### Access

Any person with access to the EPA National Computer Center IBM-3090 computer has access to the WBS. This will allow the user to view information and generate reports. Only State approved contacts are given a password and allowed to add or edit information. User support is available from the Monitoring Branch.

#### National Manager

(202) 382-6228 Monitoring Branch

#### Waterbody System (WBS)

## What Types of Information are in the System?

Waterbodies

Users can obtain information

Type (River, Lake, etc.)

County Code and Name

Hydrological Indexing

Lake Latitude and Longitude

**ID** number

Description

Name

Size

Basin

about:

#### Waterbody Assessment

#### Users can obtain information about:

- Type of assessment
  - assessment date
  - toxics monitoring
  - -- media pollutants assessed
  - new or revised TMDL needed
  - -- TMDL date
  - -- type of assessment
  - -- sampling dates
- Status of Waterbody
  - CWA goal statús
  - use support status
  - water quality limited status
  - aquatic contamination
  - -- designated uses
  - -- trophic status and trend controls
  - -- restoration
- Causes and Sources of Impairment

## What Management Tools are Available through the System?

#### Reports

#### Users can obtain these reports:

- Summary Reports
  - -- designated use support
  - -- attainment of CWA goals
  - -- cause of impairment
  - -- source of impairment
  - total waterbody size affected by toxics
- · Listing Reports
  - -- trophic status
  - -- toxics status
  - -- use support
  - CWA goal status
  - general report of all waterbody data
  - -- waterbody index report
  - -- lake quality report
- Custom Reports Specified by User

#### **Analytical Tools**

Users can employ mapping tools available from other systems to analyze waterbody information.
These include:

- PC and Mainframe
   Mapping Using the EPA
   Reach File for Hydrologic
   Line Traces
- Geographical Analysis
   Using STORET

Office of Water Environmental and Program Information Systems Compendium

<sup>\*</sup>Bold text indicates that these are required data elements.

#### Introduction

This chapter contains an inventory of approximately 75 additional environmental and program information systems maintained by the Headquarters Office of Water, but not profiled. Although most of these systems are narrower in scope than the 19 systems that the compendium highlights, they contain information that could be useful for cross media and program assessments.

Most, but not all, of the systems in this inventory are automated. Each system narrative consists of the name of the system, the office responsible for its operation, the hardware and software used, and a point of contact. A brief description summarizes each system's purpose and the types of information available from it.

The systems have been organized into three broad categories, each with several subcategories:

- Environmental and Program Systems
  - -- Tracking systems
  - -- Informational systems
- Program and Information Tools
  - -- Models
  - Analytical tools
- Outreach Services
  - -- Hotlines
  - Clearinghouses
  - -- Bulletin boards

An overview matrix is included at the beginning of the section to provide users of the compendium with a listing of systems (including the 19 that have been profiled in greater detail). It also helps users to quickly determine which systems are available in each of the seven OW Program Offices. Each system shown in the matrix can be found in the more detailed

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narrative that follows that describes the purpose of the system and the type of information it contains. The systems are arranged alphabetically under each major category within the narrative section.

The information in this section has been excerpted from a larger document, the Office of Water Information Systems and Services, that contains descriptions of approximately 175 systems and information outreach services maintained by the Office of Water. Systems in this document have been placed into the following broad categories:

- Administrative Systems.
- Environmental and Program Systems.
- Outreach Services (e.g., hotlines, clearinghouses, bulletin boards).
- Program and Information Management Tools (e.g., models, analytical tools, and access tools).

A copy of the complete inventory is available from the Office of Water.

#### Office of Water (HQ) Environmental and Program Information Systems ENVIRONMENTAL AND PROGRAM SYSTEMS

Office Category	Immediate Office	ODW	OGWP	ОМЕР	OWP	owrs	OWEP	ОМРС
Tracking Systems		Administrative Order Tracking System (SPD; PC; dBASE)  National Pesticide Survey Budget Tracking System (IO; PC; Lotus 1-2-3)  National Pesticide Survey Sample Tracking System (TSD; PC; dBASE)  TSD Sample Tracking System (TSD; PC; dBASE)  UIC Program Summary System (SPD; PC; PFS)		National Estuary Program Tracking System (TSD; PC; dBASE/Clipper)  Sludge Dumping Activities Monitoring System (MOD; PC; dBASE)	Inventory of 309(g) Orders (RAD; PC; WordPerfect)	State Dioxin Criteria Tracking System (CSD; PC; dBASE) State Toxics Criteria Tracking System (CSD; PC; dBASE) 304(I) Progress Tracking System (AWPD; PC; dBASE)	Administrative Order Inventory and Tracking System (ED; PC; dBASE IV)  Administrative Penalty Orders Inventory and Tracking System (ED; PC; dBASE IV)  Discharge Monitoring Report (DMR) Quality Assurance Studies Tracking System (ED; MF; ASCII file)  Judicial Case Review Tracking System (ED; PC; dBASE IV)  National Municipal Policy Inventory and Tracking System (ED; PC; dBASE)  NPDES Permit Backlog (PD; PC; Lotus 1-2-3)  Permits Compliance System (ED; MF; ADABAS)  Pretreatment Audit Summary System (PD; PC; dBASE)  Pretreatment Tracking System (PD; PC; dBASE)	

#### Office of Water (HQ) Environmental and Program Information Systems ENVIRONMENTAL AND PROGRAM SYSTEMS (cont'd)

Office Category	Immediate Office	ODW	OGWP	ОМЕР	OWP	OWRS	OWEP	ОМРС
Informational Systems	System (WPO; PC; Lotus 1-2-3)	Additive Information System (CSD; MF; S2K) Drinking Water Regulatory Impact Analyses (PDED; non- automated) Federal Reporting Data System (SPD; MF; S2K) Hazardous Waste Injection Well Data Base (SPD; PC; dBASE) Inventory of Certified Labs (TSD; PC; dBASE) Summary of State and Federal Drinking Water Standards and Guidelines (CSD; PC; dBASE/FoxBase) Unregulated Contaminants Data Base (TSD; MF; FOCUS)	Base (SAIMS, MF, SQL/Informix) State Files Data Base (SAIMS; PC; dBASE)	Ocean Data Evaluation System (MOD; MF; SAS/TSO)	Wetlands Data Base (WSSPD; PC; dBASE) Wetlands and Aquatic Species List (WSSPD;PC; dBASE)	Effluent Guidelines Studies (ITD; non- automated/ MF; various software)  LISTS (ITD; PC; System J)  National Sewage Sludge Survey (AED; MF; SAS)  STORET (AWPD; MF; in-house software)  Waterbody System (AWPD; MF; in-house software)		GICS (MCD; MF; ADABAS)  Innovative and Alternative Systems Data Base (MFD; MCOBOL)  NEEDS Survey (MFD; MF; S2K)  SRF Information Data Base (PAD; PC; dBASE)

#### Office of Water (HQ) Environmental and Program Information Systems OUTREACH SYSTEMS

Office Category	Immediate Office	ODW	OGWP	ОМЕР	OWP	owrs	OWEP	OMPC
Bulletin Boards			Local Exchange Ground-Water Bulletin Board (SAIMS; MF; SQL/Informix)	COASTNET Bulletin Board (TSD; Galactacon Hardware and Software)	Regulatory Communication and Knowledge-Based System (WSSPD;MF; various)			GICS Users' Bulletin Board (MCD; MF; TSO) National Small Flows Clearinghouse Computer Bulletin Board (MFD; PC; RBBS)
Bibliographies	OW Resource Center (WPO; PC; dBASE)	ODW Publications Inventory and Bibliography (IO; PC; dBASE/Clipper)  Office of Drinking Water Risk Communication Bibliography (CSD; non-automated)						Referral List of Waste Water Treatment Related Publications (MFD; PC; dBASE)
Clearinghouses	State Funding Study Financial Information Clearinghouse (WPO; PC; dBASE)					Clean Lakes Clearinghouse (AWPD; PC; dBASE) Monitoring Branch Clearinghouse (AWPD; automation in progress) Water Quality Standards Clearinghouse (CSD; PC; dBASE)		Environmental Financing Information Network (EFIN) (MFD; under development) National Small Flows Clearinghouse (MFD non-automated)
Hotlines		Safe Drinking Water Hotline (SPD; non- automated)					Storm Water Hotline (PD; non-automated)	

#### Office of Water (HQ) Environmental and Program Information Systems PROGRAM AND INFORMATION MANAGEMENT TOOLS

Immediate Office	ODW	OGWP	ОМЕР	OWP	owrs	OWEP	ОМРС
	Class I Hazardous Waste Models (SPD; PC; various)				<i>DYNHYD5</i> (AWPD; PC/MF; FORTRAN)		CAPDET (MCD; MF FORTRAN)
	Packed Column Aeration System Design Procedure				DYNTOX (AWPD; PC/MF; FORTRAN)		
	WHAT-IF(PDED; PC; SMART)				EXAMS-II (AWPD; PC/MF; FORTRAN)		
					FGETS (AWPD; PC/MF; FORTRAN)		
					GCSOLAR (AWPD; PC/MF; FORTRAN)		
					HSPF (AWPD; PC/MF; FORTRAN)		
					Land Application/ Distribution /Marketing - Model for Terrestrial Pathways (CSD; PC; RAMMS)		
					Land Application/ Distribution/Marketing - Model fir Surface Runoff (CSD; PC; SLAPMAN)		
		Class I Hazardous Waste Models (SPD; PC; various)  Packed Column Aeration System Design Procedure (TSD; HP)  WHAT-IF(PDED; PC:	Class I Hazardous Waste Models (SPD; PC; various)  Packed Column Aeration System Design Procedure (TSD; HP)  WHAT-IF(PDED; PC;	Class I Hazardous Waste Models (SPD; PC; various)  Packed Column Aeration System Design Procedure (TSD; HP)  WHAT-IRPDED; PC:	Class I Hazardous Waste Models (SPD; PC; various)  Packed Column Aeration System Design Procedure (TSD; HP)  WHAT-IFIPDED; PC;	Class I Hazardous Waste Models (SPD; PC; various)  Packed Column Aeration System Design Procedure (TSD; HP)  WHAT-IRPDED; PC; SMART)  FGETS (AWPD; PCMF; FORTRAN)  GCSOLAR (AWPD; PCMF; FORTRAN)  FGETS (AWPD; PCMF; FORTRAN)  Land Application/ Distribution Marketing - Model fir Surface Rundfil (SSD; PC; RAMMS)  Land Application/ Distribution/Marketing - Model fir Surface Rundfil (SSD; PC;	Office  Class I Hazardous Waste Models (SPD; PC; various)  Packed Column Aeration System Design Procedure (TSD; HP)  WHAT-IRPDED; PC; SMART)  WHAT-IRPDED; PC; SMART)  DYNTOX (AWPD; PC/MF; FORTRAN)  EXAMS-II (AWPD; PC/MF; FORTRAN)  FGETS (AWPD; PC/MF; FORTRAN)  GCSOLAR (AWPD; PC/MF; FORTRAN)  HSPF (AWPD; PC/MF; FORTRAN)  Land Application/ Distribution Marketing - Model for Terrestrial Pathways (CSD; PC; RAMMS)  Land Application/ Distribution/Marketing - Model for Surface Runoft (CSD; PC;

# Office of Water (HQ) Environmental and Program Information Systems PROGRAM AND INFORMATION MANAGEMENT TOOLS (Cont'd)

Office Category	Immediate Office	<b>ODW</b>	OGWP	ОМЕР	OWP	OWRS	OWEP	ОМРС
Scientific/ Technical Models						Landfill (Monofill) - Model (CSD; PC; Sludgeman)		
(cont'd)						MINTEQA2 (AWPD; PC/MF; FORTRAN)		
						<i>PRZM</i> (AWPD; PC/MF; FORTRAN)		
						<i>QUAL2E</i> (AWPD; PC/MF; FORTRAN)		
						RUSTIC (AWPD; MF; FORTRAN)		
						Sludge Incineration Model (CSD; PC; FORTRAN)		
						SWMM (AWPD, PC/MF; FORTRAN)		
						WASP4 (AWPD; PC/MF; FORTRAN)		

# Office of Water (HQ) Environmental and Program Information Systems PROGRAM AND INFORMATION MANAGEMENT TOOLS (Cont'd)

Office Category	Immediate Office	ODW	OGWP	ОМЕР	OWP	owrs	OWEP	ОМРС
Analytical Tools						City File (AWPD; MF; in-house software)  Dam File (AWPD; MF; in-house software)  Drinking Water Supply File (AWPD; MF; in-house software)  Gage File (AWPD; MF; in-house software)  Industrial Facilities Discharge File (AWPD; MF; in-house software)  OWRS Pollutant Ranking System (CSD; PC; dBASE)  Reach File (AWPD; MF; in-house software)  Water Quality Analysis System (AWPD; MF; in-house software)		
Access Tools	ANNIE-IDE (AWPD, PC/MF, FORTRAN ANNIE-WDM (AWPD, PC/MF, FORTRAN)	FRDS-II Data Entry (SPD; PC; dBASE/Clipper)		ODES Data Entry System (MOD; PC; dBASE)				

#### Environmental and Program Systems:

### Administrative Order (AO) Tracking System (PC, dBASE, ODW/SPD/UIC)

#### **Tracking Systems**

The purpose of the system is to track the progress of proposed Administrative Orders. The system contains information on the proposed and final AOs, penalty amounts, name of the facility, permit number, the docket number and violations.

Contact: Peter Bahor - (202) 382-7280

■ Administrative Order Inventory and Tracking System (PC, dBASE IV, OWEP/ED)

The purpose of the system is to track the progress of proposed Administrative Orders. The system contains information on the proposed and final dates, type of penalty involved, penalty amounts, the name of the facility and its permit number, and the docket number.

Contact: Beryl Roman - (202) 475-8310

 Administrative Penalty Orders Inventory and Tracking System (PC, dBASE IV, OWEP/ED)

The purpose of this system is to track the status of administrative penalty orders in each of the Regions, and to enable staff to assess the consistency of penalties across the Regions. This system contains information on: the number and type of violations, the duration and severity of violations, and the amount of proposed and final penalties.

Contact: Ken Keith - (202) 245-3714

## Environmental and Program Systems:

#### Discharge Monitoring Report (DMR) Quality Assurance Studies Tracking System (Mainframe, ASCII, OWEP/ED)

## Tracking Systems (Continued)

Assurance Studies analyze the quality of NPDES permittee self-monitoring information. The system contains information for approximately 7500 major permittees. The permittee laboratories have been required to analyze and report on pollutants specified in their NPDES permits. Parameters tested include: nutrients, total suspended solids, oxygen demand, heavy and trace metals, PH, oil and grease, total chlorine residual, total cyanide, and total phenolics. Information has been stored in this system since the inception of the Performance Evaluation Program in 1980.

Contact: Samuel To - (202) 475-8322

■ Inventory of 309(g) Orders (PC, Word Perfect List, OWP/RAD)

This system contains an inventory of all 309(g) administrative penalty orders. The following information is recorded: respondent's name/company, issue date, proposed penalty, consent agreement issue date, settlement penalty, concurrence by Headquarters, and status of case.

Contact: Gregory Peck - (202) 475-7799

Judicial Case Review Tracking System (PC, dBASE IV, OWEP/ED)

The purpose of the system is to enable staff to track the status of ongoing cases and to maintain a historical record of case results. Information contained in the system includes: the date cases were referred to EPA, name of the case, who reviewed the case, dates when it was reviewed, facility name, facility type, and the penalty assessed.

Contact: Elson Lim - (202) 475-8321

#### Environmental and Program Systems:

## Tracking Systems (Continued)

### National Estuary Program Tracking System (PC, dBASE/Clipper, OMEP/TSD)

The purpose of this system is to track grants, interagency agreements, contracts, and progress toward national program goals. Milestones and products are conveniently tracked, as well as amendments and closeouts. The system provides clear, concise reports on due dates and status of projects. The system is used by the Regions and the National Estuary Program Management Conferences to manage their estuary programs.

Contact: Joe Hall - (202) 475-7102

### ■ National Municipal Policy Inventory and Tracking System (PC, dBASE, OWEP/ED)

The purpose of the system is to track the status of compliance and enforcement action plans. The system includes: facility descriptions (e.g., location, NPDES permit number, size, population served, type of treatment, etc.), compliance schedule, construction schedule, starting date, and ending date.

Contact: James Ferretti - (202) 475-8317

#### ■ NPDES Permit Backlog (PC, Lotus 1-2-3, OWEP/PD)

The purpose of this system is to assist staff in calculating the backlog of NPDES permits in both the Regions and the NPDES States. The system contains the universe of major permits by State and/or Region, and tracks the number of permits that have expired by State. The user can use the information within the system to calculate permit backlogs.

Contact: Kim Ogden - (202) 475-9545

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## Environmental and Program Systems:

## National Pesticide Survey Budget Tracking System (NPS) (PC, Lotus 1-2-3, ODW/IO)

## Tracking Systems (Continued)

This system tracks the expenditure of funds for survey activities against the total funds allocated for the Pesticides in Drinking Water Well Survey. It also tracks the degree to which project milestones are being met (e.g., sampling schedule).

Contact: Jean Briskin - (202) 382-5508

■ National Pesticide Survey Sample Tracking System (PC, dBASE, ODW/TSD)

This system allows the automated scheduling and tracking of all water samples being taken for the National Pesticide Survey as they go to and from the field and to and from the lab. It also contains the results of the laboratory analyses.

Contact: Dave Munch - (513) 569-7843 or FTS-684-7934

Pretreatment Audit Summary System (PASS) (PC, dBASE, OWEP/PD)

The purpose of this system is to track pretreatment audits performed by the OWEP contractor. The system contains information on the Region and State in which the audited facility is located, the name of the controlling authority, and the results of the audit check list used to assess the facility.

Contact: John Hopkins - (202) 475-9525

■ Pretreatment Tracking System (PC, dBASE, OWEP/PD)

The purpose of this system is to track the number of pretreatment programs that have been approved across the nation. The system currently contains information on the 1,442 pretreatment programs nationwide. Information available on each program includes: the name of the program, the Region and State in which the program resides, and the NPDES number of the facility where the program resides.

Contact: John Hopkins - (202) 475-9527

## Environmental and Program Systems:

#### Sludge Dumping Activities Monitoring System (PC, dBASE, OMEP/MOD)

## Tracking Systems (Continued)

This system was developed by Region 9 and is being modified by OMEP for potential use in all Regions. It contains site specific information on permits and environmental parameters at each dredge dumping site.

Contact: Bob King - (202) 475-7130

State Dioxin Criteria Tracking System (PC, dBASE, OWRS/ CSD)

The purpose of this system is to provide a tool for tracking numerical water quality criteria for the priority pollutant 2,3,7,8,- TCDD (dioxin). The data base includes aquatic life and human health criteria for 57 States and Territories. The system tracks criteria in three status categories: (1) adopted, (2) formally proposed, and (3) expected. Information pertaining to assumptions made in deriving human health criteria is also included. The system produces several standard reports (e.g., summary tables, detailed fact sheets) and supports a national report on State dioxin that is issued periodically.

Contact: David Moon - (202) 475-7328

State Revolving Fund (SRF) Award List (PC, Lotus 1-2-3, OMPC/PAD)

The purpose of this system is to track the amounts and dates of SRF grant awards to States. Information contained in the system includes: the State to which the grant is being made, the grant number, grant amount, date grant awarded, the appropriation from which the grant was provided, and the amount of State match.

Contact: Bob Drake - (202) 382-7267

## Environmental and Program Systems:

### ■ State Toxics Criteria Tracking System (PC, dBASE, OWRS/CSD)

## Tracking Systems (Continued)

The purpose of this system is to provide a tool for tracking 126 priority pollutants for which 57 States and Territories have adopted numerical water quality criteria for surface waters. The system tracks pollutants in two status categories: (1) pollutants for which criteria are adopted, and (2) pollutants for which criteria are expected. Adopted and expected criteria are tracked in four use categories: (1) fresh water aquatic life, (2) marine aquatic life, (3) human health, and (4) other uses. The data base does not track the actual criteria values. The system produces several standard reports (e.g., by State, by pollutant, by State totals), and supports periodic national reports on State actions in response to CWA Section 303(c)(2)(B).

Contact: David Moon - (202) 475-7328

■ Technical Support Division (TSD) Sample Tracking System (PC, dBASE, ODW/TSD)

This system tracks all water samples being taken for special studies. It tracks the date and time that the samples are received from the field and the dates they are sent to and back from the lab. Additional information in the system includes: the city, state, and site where the sample was collected; project ID; time the sample was taken; type of preservatives used on the sample; the number of bottles received per sample; the person logging in the sample; and methods used to analyze the sample.

Contact: Bonnie Newport - (513) 569-7934 or FTS-684-7934

#### Environmental and Program Systems:

### ■ 304(1) Progress Tracking System (PC, dBASE, OWRS/AWPD)

## Tracking Systems (Continued)

The system is used by OWRS to maintain an inventory of the short list of waters identified as water quality impaired under section 304(l) CWA requirements. It is used by OWEP to track the development and issuance of individual control strategies for these water quality impaired segments. OWEP staff uses the system to track permits issued as part of the water control strategies associated with specific water quality impaired waters.

Contacts: (OWRS) Mary Belefski - (202) 382-7076; (OWEP) Kathy Smith - (202) 475-9539

#### Informational Systems

Additive Information System (Mainframe, System 2000, ODW/CSD)

This system contains a list of products intended for use in the treatment, storage and distribution of drinking water. Information in the system includes: a list of EPA accepted products and the manufacturers of these products. EPA's Additive program was terminated on October 4, 1989. The list expired on April 7, 1990 and is no longer available.

Contact: Jeet Saxena - (202) 475-9579

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## Environmental and Program Systems:

#### Informational Systems (Continued)

### ■ Innovative and Alternative Systems Data Base (Mainframe, COBOL, OMPC/MFD)

The purpose of this system is to provide the Regions, States, and local governments information on innovative and alternative wastewater treatment technologies. This system contains 1,962 records of information on innovative/ alternative wastewater treatment technologies funded by EPA, FMHA, and the private sector. Information in the system includes: type of technology available, facility receiving the grant, facility number, basic facility description (flow capacity etc.) applicant's name and address, consultant's name and address, project cost, cost savings from implementing the innovative or alternative technology, and energy savings. The data base is maintained by the National Clearing House at West Virginia University.

Contact: Charles Vanderlyn - (202) 382-7277

■ Inventory of Certified Labs (PC, dBASE III +, ODW/TSD)

This system contains a list of laboratories certified to do compliance analyses and the chemicals and methods for which they are certified to test in each State.

Contact: Ed Glick - (513) 569-7939 or (FTS) 684-7939

■ LOCAL EXCHANGE Ground Water Data Base (Mainframe, SQL INFORMIX, OGWP/SAIMS)

The LOCAL EXCHANGE is an electronic source of information services, including bulletin boards and data bases available through Public Technology Inc. The service currently has over 1,000 users. The OGWP is in the process of placing a data base within the the LOCAL EXCHANGE. OGWP's intent is to build a solid body of ground-water information relevant to municipal concerns. The System provides for key word searches on ground-water publications, ground-water projects, ground-water activities and announcements, and a ground-water information directory.

Contact: Robin Heisler - (202) 382-7707

## Environmental and Program Systems:

### National Sewage Sludge Survey (Mainframe, SAS, OWRS/AED)

#### Informational Systems (Continued)

This system contains the questionnaire and chemical analytical portions of a one-time survey. The questionnaire portion contains responses from a national survey of treatment practices and disposal practices at Publicly Owned Treatment Works. The chemical analytical portion contains measurements of sludge from a subset of the respondents to the questionnaire. Both surveys used stratified random sampling to develop national estimates.

Contact: Chuck White - (202) 382-5411

■ Nationwide Volunteer Monitoring System (PC, Lotus 1-2-3, OW/WPO)

This system contains the results of a nationwide survey of the 50 States and major voluntary water quality monitoring groups. The survey was jointly designed by the Association of State Water Pollution Control Administrators (ASWIPCA), the Izaack Walton League of America, and the Office of Water. The system tracks the names and addresses of volunteer monitoring groups, type of waterbody monitored, type of activity conducted, parameters sampled, number of volunteers, budget, and State use of information.

Contact: Elizabeth Miner - (202) 382-5818

■ State Files Data Base (PC, dBASE, OGWP/SAIMS)

This data base provides the OGWP staff with a source of information on State ground-water programs. This system contains a file containing the following information for each State: the final ground-water protection strategy, legislation, local ground-water protection efforts, and information on existing or planned wellhead protection programs.

Contact: Norbert Dee - (202) 382-7077

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# Environmental and Program Systems:

# Informational Systems (Continued)

## ■ SRF Information Data Base (PC,dBASE, OMPC/PAD)

This data base provides a summary description of the SRF in each state. It is a one-time inventory that provides information on the structure of each State SRF program. Information in the system includes: which State agency manages the SRF program and the contact, general program description and main features of the program, assistance provided by the state program, and how the state program is capitalized (State grants, bonds etc.).

Contact: Bob Drake - (202) 382-7267

 Summary of State and Federal Drinking Water Standards and Guidelines (PC,dBASE/Foxbase, ODW/CSD)

This system contains the results of the 1989 survey of State and Federal drinking water standards and guidelines as of January 1, 1989, conducted by the Federal/State toxicology and Regulatory Alliance Committee (FSTRAC). The data base contains information from 41 States, including information on existing and planned standards, descriptions of State Drinking Water Programs, and State recommendations on contaminants for which there should be future Federal standard development.

Contact: Bruce Mintz - (202) 382-7571

■ Unregulated Contaminants Data Base (Mainframe, FOCUS, ODW/TSD)

This system contains the results of monitoring done by public water supply systems to detect the presence of unregulated chemicals (those with no MCLs) in their surface and/or ground-water supplies. Information contained in the system includes: the public water supply identification number; if available latitude and longitude; when the sample was collected; method used for analysis; and results of the sample analysis. This monitoring is required once every five years under the Safe Drinking Water Act Amendments of 1987.

Contact: Jim Walasek - (513) 569-7919 or (FTS) 684-7919

## Environmental and Program Systems:

## Informational Systems (Continued)

## ■ Wetlands Data Base (PC, dBASE, OWP/WSSPD)

The purpose of this data base is to provide an information exchange tool for the States and public. It contains information on State Wetland Protection programs. Specific information includes: status and structure of each State Program, and program contact names. EPA provided the Council of State Governments, which maintains the system, with the initial funds to develop the system.

Contact: Lori Williams - (202) 382-5084

## ■ Wetland and Aquatic Species List (PC, dBASE, OWP/WSSPD)

The purpose of the system is to aid EPA 404 permit reviewers. This system contains lists of vertebrates, invertebrates, and plants characteristic of wetland species in each State. Information in the system includes types of habitats the species occupy and the States where these species are present. EPA provided funds to The Nature Conservancy to develop this system, and the system can not be distributed without written permission from The Nature Conservancy.

Contact: Martha Stout - (202) 475-6745

## Outreach Systems:

#### **Bulletin Boards**

### COASTNET (Galactacom software and hardware, OMEP/TSD)

COASTNET provides rapid access to a wide array of information to those involved in coastal and estuarine planning, management, and protection. It includes a timely bulletin board section, which can be read on-line, a state-of-the-art electronic mail facility, and an extensive file library. It is designed to foster networking and communications among the user community.

Contact: Joe Hall - (202) 382-7102

## **Outreach Systems:**

### Bulletin Boards (Continued)

## GICS Users' Bulletin Board (Mainframe, TSO, OMPC/MCD)

The purpose of this bulletin board is to provide GICS users with notices of publications and announcements of meetings related to waste water management.

Contact: Jannie Latta - (202) 382-5831

■ LOCAL EXCHANGE Ground-Water Bulletin Board (Mainframe, SQL INFORMIX, OGWP/SAIMS)

The LOCAL EXCHANGE is an electronic source of information services which includes bulletin boards and data bases available through Public Technology Inc. The service currently has over 1,000 users. OGWP is in the process of putting a bulletin board on the exchange to enable OGWP and the Regions to interact more effectively with local governments. The bulletin board will focuses specifically on ground-water and wellhead protection issues.

Contact: Robin Heisler - (202) 382-7707

■ National Small Flows Clearinghouse Computer Bulletin Board (PC, RBBS, OMPC/MFD)

The purpose of this bulletin board is to provide waste water treatment operators easy access to information pertaining to small waste water treatment systems. Information provided includes: research on waste water management, updates of Environmental Protection Agency programs, new clearinghouse services, new products from industry, and scheduled conferences and seminars. Users are able to send messages to other users. Users are also able to hold private electronic conferences on waste water topics such as construction of new wetlands, waste water operator's solutions to specific problems, a wastewater and water equipment exchange, and guidance on infrastructure financing.

Contact: Randy Revetta - (202) 382-5685

## **Outreach Systems:**

# Bulletin Boards (Continued)

Regulatory Communication and Knowledged-Based System (DIALCOM Mainframe accessed through any terminal and a variety of software packages, OWP/WSSPD)

The purpose of this system is to facilitate communication of current wetland regulatory information among EPA Headquarters, EPA Regions, States, and the U.S. Army Corps of Engineers' nine Regional offices and 37 districts. OWP and the U.S. Army Corps of Engineers Regulatory Branch jointly operate and maintain this system.

Contact: Cory Giacobbe - (202) 382-5907

## **Bibliographies**

 ODW Publications Inventory and Bibliography (PC, Clipper, ODW/IO).

The purpose of this system is to provide ODW staff and the public with an up to date inventory of ODW publications. This system contains an updated list of all ODW publications and tracks the number of each document in stock. The system contains an abstract for each publication in the inventory list.

Contact: Charlene Shaw - (202) 382-5508

■ Office of Drinking Water Risk Communication Bibliography (non-automated, ODW/CSD)

This is a list of all the materials that the Criteria and Standards Division has in their files on the topic of drinking water risk communication. The system consists of publications prepared by EPA, other Federal Agencies, States, local governments, and public interest groups about: risks associated with various chemicals, methods to analyze risks, and risk communication techniques.

Contact: Bruce Mintz - (202) 382-7571

## **Outreach Systems:**

### OW Resource Center (PC, dBASE, OW/IO/WPO)

# Bibliographies (Continued)

The OW Resource Center contains key water quality management documents published by the Office of Water and other organizations. Approximately 600 documents are indexed and described in an annotated bibliography. The bibliography includes information such as: title, author, publication date, abstract keywords, and, if applicable, EPA report number.

Contact: Elizabeth Miner - (202) 382-5818

 Referral List of Waste Water Treatment Related Publications (PC,dBASE, OMPC/MFD)

The purpose of this system is to maintain an inventory of waste water treatment related publications. This is an automated list of municipal pollution control related documents by title, key word, source, document number, and cost. The system currently contains 3,000 records.

Contacts: Bernita Starks - (202) 382-7287 and Bernice Harper - (202) 382-7373

#### Clearinghouses

 Clean Lakes Clearinghouse (PC and/or Mainframe, dBASE III+, OWRS/AWPD)

The Clearinghouse contains a core of technical information on lake restoration, protection and management. It provides a computerized bibliographic data base, printed bibliographies, and user support services.

Contact: Terri Hollingsworth - (202) 382-7111

## **Outreach Systems:**

## Clearinghouses (Continued)

 Environmental Financing Information Network (EFIN) (Under Development, OMPC/MFD)

The purpose of EFIN is to provide information on alternative financing mechanisms to support State environmental programs and local environmental infrastructure projects (e.g., publicly owned treatment works, publicly owned drinking water and wastewater treatment facilities, combined sewer overflow and stormwater). During FY 1991, EFIN will provide a computerized bibliographic data base, printed bibliographies, and searches of data bases and literature, upon request. Hotline and expert referral services will also be provided. The data base will be accessed directly through existing electronic bulletin board systems.

Contact: June Lobit - (202) 382-7372

■ Monitoring Branch Clearinghouse (In process of being automated, OWRS/AWPD)

The purpose of the Clearinghouse is to provide the public with Final Waste Load Allocation Guidance Documents, Draft Waste Load Allocation Guidance Documents, Monitoring Guidance Documents and a series of miscellaneous documents dealing with the activities of the Monitoring Branch.

Contact: Nina Harllee - (202) 382-7040

 National Small Flows Clearinghouse (Non-automated, OMPC/MFD)

Clearinghouse staff gather and distribute information about small community wastewater systems. They offer educational materials including brochures, films, videotapes, handbooks and manuals. The clearinghouse also has a referral service (by State) of experts who design and operate wastewater treatment facilities (1-800-624-8301). The referral service also conducts seminars.

Contact: Randy Revetta - (202) 382-5685

## **Outreach Systems:**

## Clearinghouses (Continued)

## State Funding Study Financial Information Clearinghouse (PC, dBASE, OW/IO/WPO)

This system serves as a repository for approximately 300 documents that provide information on alternative sources of funding for State Water Programs. Documents are indexed and described in an annotated bibliography containing the following information: title, author, publication date, abstract, and keyword.

Contact: Elizabeth Miner - (202) 382-5818

# ■ Water Quality Standards Clearinghouse (Under Development) (PC, dBASE, OWRS/ CSD)

This system will summarize the basis for each State's water quality standards. Information provided includes: Water Quality Standards citations, definitions of designated stream uses, numeric and narrative criteria, antidegradation statements, and state contacts. The system will also summarize specific State activities performed to facilitate technical information exchange as well as enable tracking of State activities. Activities tracked include: State standards review, criteria development, use attainability analyses, implementation methods, standard related research, and water quality surveys.

Contact: Robert Shippen - (202) 475-7318

#### **Hotlines**

# Safe Drinking Water Hotline (Non-Automated, ODW/SPD)

The hotline helps the regulated community and the public to understand the regulations and programs developed in response to the Safe Drinking Water Act Amendments. The Hotline staff provides explanations and updates on ODW regulations, policies, and information on the availability of educational materials, technical publications, and guidance documents.

Contact: Carl Reeverts - (202) 382-5522

### **Outreach Systems:**

### ■ Storm Water Hotline (Non-Automated, OWEP/PD)

## Hotlines (Continued)

The purpose of the hotline is to answer the public's questions about the new stormwater regulations.

Contact: Hotline Staff - (202) 475-9518

### Program and Information Management Tools:

Class I Hazardous Waste Models (FORTRAN, Pascal, Lotus, and other mathematical software, ODW/SPD)

Scientific Technical Models Several models are used by the Office of Drinking Water to provide technical support for decisions about nomigration, land ban petitions of hazardous waste. The models simulate flow and transport, with the majority of them simulating diffusion dominated transport. Many of these models are generated for one time applications and are not user friendly. The type of model used is determined on a case-by-case basis.

Contact: David Morganwalp - (202) 382-5544

■ Computer Assisted Program for the Design and Evaluation of Treatment Systems (CAPDET) (Mainframe, FORTRAN, OMPC/MCD)

This mathematical model enables the user to estimate: the construction and operating costs for wastewater treatment plants, quantities of labor and materials necessary, treatment efficiency, and amount of sludge generated by wastewater treatment plants. Calculations are based on a large historical data base of: cost, labor, construction, and operating information. The model is designed so it could be modified to accommodate the modeling of costs and material needs for drinking water treatment plants and contaminated groundwater. The model was originally developed by the U.S. Army Corp of Engineers and substantially upgraded by EPA.

Contact: Thomas Moran - (202) 382-7274

### Program and Information Management Tools:

### Scientific Technical Models (Continued)

## ■ DYNHYD5 (Mainframe or PC, FORTRAN, OWRS/AWPD)

This model simulates variable tidal cycles, wind, and unsteady flows in large rivers and unstratified estuaries. This model can be used in conjunction with WASP4 to predict chemical transport and fate, and its uptake and distribution throughout a user-described food chain.

Contact: Robert Ambrose - (404) 546-3549 or FTS-250-3549

### ■ DYNTOX (Mainframe or PC, FORTRAN, OWRS/AWPD)

This is a waste load allocation model that uses a probabilistic dilution technique to estimate the concentrations of toxic substances or fractions of whole effluent toxicity. The model performs three types of simulations that can aid in the frequency and duration of toxic concentrations from a waste discharge.

Contact: Robert Ambrose - (404) 546-3549 or FTS-250-3549

## ■ EXAMS-II (Mainframe or PC, FORTRAN, OWRS/AWPD)

This is an interactive model that evaluates the behavior and probable fate of synthetic organic chemicals in lakes, rivers, and estuaries for either steady state or quasi dynamic conditions.

Contact: Larry Burns - (404) 546-3549 or FTS-250-3549

#### ■ FGETS (Mainframe PC, FORTRAN, OWRS/AWPD)

This model simulates the bioaccumulation of nonpolar organic chemicals in fish from both water and tainted food. The routes of exchange are modeled as diffusion processes that depend upon the physical-chemical properties of the pollutant and morphological/physiological characteristics of the fish. The model can also simulate time to death from chemicals whose mode of action is narcosis.

Contact: Luis Suarez - (404) 546-3549 or FTS-250-3549

### Program and Information Management Tools:

### Scientific Technical Models (Continued)

## ■ GCSOLAR (Mainframe or PC, FORTRAN, OWRS/AWPD)

The GCSOLAR program is a set of routines that computes direct photolysis rates and half-lives of pollutants in the aquatic environment. The half-lives are calculated as a function of season, latitude, time-of-day, depth in the water bodies, and ozone layer thickness.

Contact: Robert Ambrose - (404) 546-3549 or FTS-250-3549

■ HSPF (Mainframe or PC, FORTRAN, OWRS/AWPD)

This model simulates watershed hydrology and water quality for both conventional and toxic organic pollutants. The model framework includes pollutant transport and transformation within stream channels. The model can predict: flow rate, sediment load, and nutrient and pesticide concentrations.

Contact: Tom Barnwell - (404) 546-3549 or FTS-250-3549

■ Land Application/Distribution and Marketing Model for Terrestrial Pathways (PC, RAMMS, OWRS/CSD)

The model calculates concentrations of individual pollutant exposure caused by sludge disposed and released at varying rates and through several exposure routes. The model also derives the numerical limits for the distribution and marketing of sewage sludge analogous to land application.

Contact: Al Rubin - (202) 475-7306

### Program and information Management Tools:

### Scientific Technical Models (Continued)

■ Land Application/Distribution and Marketing Model for Ground Water Infiltration and Surface Runoff (PC, SLAPMAN, OWRS/CSD)

The model calculates concentrations of individual pollutant exposure caused from runoff from sludge disposal sites due to varying disposal and release rates. The model also derives the numerical limits for the distribution and marketing of sewage sludge analogous to land applications. This model has been incorporated into the RAMMS model above.

Contact: Al Rubin - (202) 475-7306

Landfill (Monofill Model, PC, SLUDGEMAN, OWRS/CSD)

The model evaluates two exposure pathways for sludge monofills: (1) pollutant infiltration to ground water and subsequent ingestion from drinking water, and (2) vaporization from the fill material and subsequent inhalation.

Contact: Al Rubin - (202) 475-7306

■ MINTEQA2 (Mainframe or PC, FORTRAN, OWRS/AWPD)

This is a geochemical model that calculates equilibrium aqueous speciation, adsorption, gas phase partitioning, solid phase saturation states, and the precipitation-dissolution of 13 metals.

Contact: David Brown - (404) 546-3549 or FTS-250-3549

Packed Column Aeration System Design Procedure (Hewlett Packard, ODW/TSD)

This is a mathematical model that determines the performance and cost of pack column air strippers.

Contact: Mike Cummins - (513) 569-7979 or FTS 684-7979

### Program and Information Management Tools:

# Scientific Technical Models (Continued)

### PRZM (Mainframe or PC, FORTRAN, OWRS/AWPD

This model predicts the vertical movement of pesticides in unsaturated soil both within and below the plant root zone, and extending to the water table. The model consists of hydrology and chemical transport components that simulate runoff, erosion, plant uptake, leaching, decay, foliar wash off and volatization of a pesticide.

Contact: Robert Carsel - (404) 546-3549 or FTS-250-3549

■ QUAL2E (Mainframe or PC, FORTRAN, OWRS/AWPD)

This tool models the behavior of conventional pollutants in one-dimensional streams and well-mixed lakes under steady state conditions. Version 3 incorporates several uncertainty analysis techniques useful in risk assessments.

Contact: Tom Barnwell - (404) 546-3549 or FTS-250-3549

■ RUSTIC (Risk of Unsaturated/Saturated Transport and Transportation of Chemical Concentrations) (Mainframe, FORTRAN, OWRS/AWPD)

RUSTIC links three subordinate models (PRZM, VADOFT, SAFTMOD) in order to predict pesticide fate and transport through the crop root zone, unsaturated zone, and saturated zone to drinking water wells. PRZM is a one-dimensional finite-difference model which accounts for pesticide fate and transport in the crop root zone. VADOFT is a one-dimensional finite element model which solves the Richard's equation for flows in the unsaturated zone. VADOFT may also simulate the fate of two parent and two daughter products. SAFTMOD is a two-dimensional finite element model which simulates saturated solute flow and transport in either an X-Y or X-Z configuration.

Contact: Robert Carsel - (404) 546-3549 or FTS-250-3549

### Program and Information Management Tools:

### Scientific Technical Models (Continued)

## ■ Sludge Incineration Model (PC, FORTRAN, OWRS/CSD)

The model evaluates exposure from the inhalation of incinerator emissions. The following substances were evaluated: arsenic, cadmium, chromium, lead, nickel, mercury, beryllium, and total hydrocarbons.

Contact: Al Rubin - (202) 475-7306

#### ■ SWMM (Mainframe or PC, FORTRAN, OWRS/AWPD)

This model simulates all aspects of the urban runoff hydrologic and quality cycles. This includes: surface runoff, transport through the drainage network, and storage and treatment.

Contact: Robert Ambrose - (404) 546-3549 or FTS-250-3549

### ■ WASP4 (Mainframe or PC, FORTRAN, OWRS/AWPD)

This model simulates contaminant fate and transport in surface waters in one, two or three dimensions. A toxicant version handles organic chemical or metals and sediment, while a conventional pollutant version handles DO, CBO, nutrients and eutrophication.

Contact: Robert Ambrose - (404) 546-3549 or FTS-250-3549

#### ■ WHAT -IF (PC,SMART, ODW/DED)

This model enables the user to estimate the differences in the costs of implementing a range of proposed MCL regulatory schemes for specific chemical contaminants.

Contact: David Schnare - (202) 382-5515

### Program and Information Management Tools:

## **Analytical Tools**

 Model Permit OCPSF (Organic Chemicals, Plastics, Synthetics, and Fibers) (PC, dBASE III+/Clipper, OWEP/PD)

This expert system is a permit writing tool for the Organic Chemicals, Plastics, Synthetics, and Fibers Industries. This tool automates the process by which a permit writer calculates the permit limits for a particular facility. Calculations are based on the effluent guidelines developed for the Organic Chemical, Plastics, Synthetics, and Fibers Industries. Information that is input into the system includes: facility name, NPDES number, outfall name, list of possible products to be produced, annual production rates for these products and the process waste flows expected. The calculations made are technology based and do not include stream flow information. The system is in its draft form and is available on disk.

Contact: Mary Anne Episcopo - (202) 475-9523

OWRS Pollutant Ranking System (PC, dBASE, OWRS/ CSD)

The purpose of the system is to provide a screening mechanism for prioritizing chemicals that may be the subject of water criteria and advisories. The fifteen ranking categories include: acute and chronic toxicity to aquatic organisms; acute and chronic toxicity to wildlife; acute mammalian toxicity; chronic mammalian/human health effects (mutagenicity, carcinogenicity and teratogenicity); bioaccumulation in animals; plants uptake rates; and environmental persistence in water. The dBASE software calculates a score of 0 to 5 for each of the 15 categories, averages the category scores to produce 3 group scores, then adds the group scores to generate a total for each pollutant, which is used in ranking the more than three hundred chemicals in the data base. Several standard reports are available (e.g., ranked list of all chemical, detailed information for a particular chemical).

Contact: Warren Banks - (202) 475-7322

### Program and Information Management Tools:

# Analytical Tools (Continued)

## ■ PRELIM VERSION 4 (PC, dBASE III/CLIPPER, OWEP/PD)

This is a computer program to assist POTWs, States, and Regions with the development of local discharge limits. The system allows the permit writer to input the environmental criteria that POTWs must meet and automates the calculations that enable a permit writer to determine the amount of load that can be discharged into the receiving stream. The system also assists a permit writer to determine how to allocate loads between the various dischargers to the POTW.

Contact: Jeff Lape - (202) 475-9525

 Water Quality Analysis System (Mainframe) - (In-House Software, OWRS/AWPD)

The purpose of this system is to link a series of water quality data files (IFD, Gage, Water Supply, Dams, City, Complex Effluent Toxicity Information System (CETIS), Reach File, and Storet) and to enable the user to create reports and graphics from the environmental information maintained in these data files. By using this software, users can obtain access to a wide variety of information related to: cities, stream impairment, the NPDES permits and pipe discharge information, and stream flow information by stream reach, stream gages, drinking water supply locations, facility discharge locations information, monitoring, and bioassay results.

Contact - Phil Taylor - (202) 382-7046

### Program and Information Management Tools:

#### Access Tools

#### ANNIE-IDE (Mainframe, PC, or Minicomputer, Fortran, OWRS/AWPD)

ANNIE-IDE provides a straightforward, consistent methodology for designing and implementing interactive user interface systems for environmental software. Its purpose is to reduce the difficulty a programmer will encounter in developing interfaces. ANNIE-IDE currently implements five basic interaction models: 1) display and entry of text; 2) menu selection; 3) single value data entry; 4) entry of data in tables; and 5) file specifications.

Contact: Alan M. Lumb - (703) 648-5306 or FTS-959-5306

## ■ ANNIE-WDM (Mainframe, PC, or Minicomputer, Fortran, OWRS/AWPD)

ANNIE-WDM is a toolkit of FORTRAN subroutines that allow manipulation of data bases and screen information to perform many functions supporting model operation. The user can interactively perform tasks related to information management, table and graphical presentation, statistical analysis, and data input preparation for hydrological models. Information is stored in a file called the Watershed Data Management (WDM) file.

Contact: Alan M. Lumb - (703) 648-5306 or FTS-959-5306

## ■ FRDS-II DATA ENTRY (FRDS-DE): (PC, Clipper, ODW/SPD)

The purpose of the system is to facilitate data entry into FRDS-II by providing users with a PC-based data entry tool. The system enables those who may be unfamiliar with FRDS-II to enter data easily and quickly.

Contact: Arnetta Davis - (202) 382-2803

### Program and Information Management Tools:

# Access Tools (Continued)

 ODES DATA ENTRY SYSTEM (PC, dBASE, OMEP/MOD)

The purpose of the system is to facilitate data entry into ODES by providing users with a PC-based data entry tool. The system enables those unfamiliar with ODES to enter data easily and quickly.

Contact: Bob King - (202) 475-7130

#### Introduction

Water Program managers have indicated that many information systems outside the Office of Water contain information useful in implementing their programs. These systems are maintained by a variety of organizations including: other EPA offices, Federal agencies, and special interest groups. This chapter contains descriptions of 20 information systems that are frequently used by water program managers and have been recommended for inclusion in this compendium.

The systems included in this chapter are:

#### **U.S. Environmental Protection Agency**

AQUIRE	AQUatic Information REtrieval Data Base
IRIS	Integrated Risk Information System
PC-CETIS	Personal Computer-Complex-Effluent Toxicity Information System
 TRIS	Toxic Chemical Release Inventory System

## U.S. Geologic Survey (Department of the Interior)

- Master Water Data Index
- Water Data Sources Directory
- WATSTORE Water Data Storage/Retrieval System
- National Water Use Data System

# **U.S. Fish and Wildlife Service (Department of the Interior)**

- National Wetlands Research Center Data Base
- National Wetlands Inventory Digital Data Base
- List of Plants That Occur in Wetlands
- Wetlands Values Citation Data Base

# Introduction (Continued)

#### U.S. Coast Guard

- CHRIS/HACS Chemical Hazards Response Information System/Hazard Assessment Computer System
- MPRS Marine Pollution Retrieval System

# **National Oceanic and Atmospheric Administration (U.S. Department of Commerce)**

- NEDRES National Environmental Data and Referral Service Data Base
- NMPIS National Marine Pollution Information System
- NSTDB National Status and Trends Data Base

#### Izaak Walton League of America

■ Monitors Save Our Streams Information Network

#### American Water Works Association

- Water Industry Data Base
- WATERNET

This is not intended as a comprehensive list of all water systems. Discussions with managers of water-related systems, both inside and outside the Agency, indicate that there may be several thousand such systems nationwide and many more internationally. In addition, the purpose of this document is limited in scope and is not meant to function as a comprehensive clearinghouse of water information. Several Federal agencies do have organizations that serve this function.

Key water information clearinghouses include the U.S. Geologic Survey's National Water Data Exchange (NAWDEX) and National Water-Use Information Program, and the National Oceanic and Atmospheric Administration's (NOAA) National Oceanographic Data Center (NODC), which manages the Ocean Pollution Data and Information Network (OPDIN) and National Environmental Data and Referral Service (NEDRES). These are briefly described below.

# Introduction (Continued)

## **U.S.** Geologic Survey

The USGS National Water Data Exchange (NAWDEX) is a confederation of water-oriented organizations working together to improve access to water information. Members include Federal, State, interstate, local government, academic, and private sectors of the water information community. Its primary objective is to assist water information users in identifying, locating, and acquiring information they need. This is accomplished through a nationwide network of 75 Assistance Centers located in 45 States and territories.

NAWDEX is not a repository of water information; instead, its staff provides a central index of water information available from a large number of organizations. This information is available through a computerized Water Sources Directory maintained in the USGS computer system in Reston, Virginia. In addition, NAWDEX's Master Water Data Index identifies more than 450,000 sites for which water information is available from over 450 organizations. The specific information contained in this system is described in greater detail in the body of this chapter. For further information on NAWDEX, contact:

(703) 648-5663 FTS 959-5663 National Water Data Exchange U.S. Geologic Survey

The USGS also supports the National Water-Use Information Program. The Program is a Federal-State cooperative program designed to collect, store, and disseminate water-use information both nationally and locally. The Program was begun in 1978 to meet the need for a single source of uniform information on water use. The water-use information from this program complements long-term USGS information on the availability and quality of the Nation's water resources. For more information, contact:

(703) 648-5670 U.S. Department of the Interior U.S. Geologic Survey National Water-Use Information Program

# Introduction (Continued)

## National Oceanic and Atmospheric Administration

Among the many services that NOAA supports is the National Oceanographic Data Center (NODC). NODC provides marine environmental information for governmental and nongovernmental organizations. NODC's role includes:

- Acquiring, processing, archiving, and disseminating environmental information.
- Providing data base management support to marine environmental assessment studies.
- Maintaining the National Marine Pollution Information System (NMPIS).
- Managing the Ocean Pollution Data and Information Network (OPDIN).
- Managing the National Environmental Data and Referral Service (NEDRES).

Within the NODC framework is the Ocean Pollution Data and Information Network (OPDIN). The purpose of OPDIN is to facilitate access to ocean pollution information generated by eleven participating Federal departments and agencies. These agencies are: the Departments of Agriculture, Defense, Energy, Health and Human Services, Interior, Transportation, and Commerce; the Environmental Protection Agency; the National Aeronautics and Space Administration; the National Science Foundation; and the Council on Environmental Quality.

OPDIN provides a wide variety of products and services to scientists, managers, and others who need information about marine pollution. Several personal computer-based data bases are maintained by NODC. These contain inventories and directories of Federal programs, projects, scientists, managers, literature, systems, and services pertaining to ocean pollution. Specialized searches for information can be provided upon request. In addition, the information within these systems has been published in guides, handbooks, and catalogues, also available upon request.

## Introduction (Continued)

The National Environmental Data and Referral Service (NEDRES) is a network of Federal, State, local, academic, and private organizations working together to improve access to environmental information. The NEDRES staff is responsible for gathering the information and maintaining an on-line computer data base that identifies the existence of environmental data sets.

For more information on NODC and OPDIN, contact:

(202) 606-5594 FTS 266-5594 (NODC/NEDRES)

(202) 606-5539 FTS 266-5539 (OPDIN) U.S. Department of Commerce National Oceanic and Atmospheric Administration National Oceanographic Data Center Central Coordination and Referral Office

# U.S. Environmental Protection Agency

# **AQUatic Toxicity Information REtrieval Data Base** (AQUIRE)

The AQUatic Toxicity Information REtrieval Data Base (AQUIRE) is an automated data base of information about the toxic effects of chemical substances on aquatic organisms. AQUIRE was developed jointly by EPA's Environmental Research Laboratory in Duluth, Minnesota and the Office of Toxic Substances to provide decision makers with information in support of risk management and standards setting.

The data base contains aquatic toxicity information for over 5,000 chemicals and 2,400 test species extracted from scientific papers, and research materials published worldwide over the last 20 years. The toxicity information covers acute and chronic toxicity, bioaccumulation, and sublethal effects information from test performed on freshwater and salt-water species, except aquatic mammals, birds, and bacteria.

For more information, contact:

(202) 382-3760 U.S. Environmental Protection Agency Office of Toxic Substances Information Management Division Existing Chemicals Team

### Integrated Risk Information System (IRIS)

The Integrated Risk Information System (IRIS) is an electronic data base containing health risk information and EPA regulatory information on specific chemicals. The health risk information is developed by two intra-Agency work groups composed of EPA scientists from program offices and the Office of Research and Development. It is maintained by EPA's Office of Research and Development. IRIS was developed for EPA staff in response to a growing demand for consistent health risk information on chemical substances for use in decision making and regulatory activities involving risk assessment.

### U.S. Environmental Protection Agency (Continued)

IRIS is not an exhaustive toxicological data base, but rather presents a collection of files covering over 400 individual chemicals. Each contains summary descriptive and quantitative information on hazard and dose response assessments in the following areas:

- Oral reference doses (RfDs) and inhalation reference concentrations (RfCs) for chronic noncarcinogenic health effects.
- Oral and inhalation slope factors and unit risks for chronic exposures.
- Drinking water health advisories from EPA's Office of Drinking Water.
- EPA regulatory action summaries.
- Supplementary information on acute health hazards and physical/chemical properties.

The data base also contains background documents on the risk assessment methods used to develop the assessments on IRIS.

For more information, contact:

(513) 569-7254
U.S. Environmental Protection Agency (Cincinnati, Ohio)
Office of Research and Development
Office of Health and Environmental Assessment
Environmental Criteria and Assessment Office
IRIS User Support

or

(202) 382-5949
U.S. Environmental Protection Agency (Washington, D.C.)
Office of Research and Development
Office of Health and Environmental Assessment
EPA IRIS Coordinator

# U.S. Environmental Protection Agency (Continued)

# Personal Computer/Complex Effluent Toxicity Information System (PC-CETIS)

The Personal Computer/Complex Effluent Toxicity Information System (PC-CETIS) is designed to be used by permitting and compliance staff at all levels of government and by industrial and municipal waste dischargers to support compliance with the Clean Water Act. PC-CETIS is a computerized repository of national toxicity test information. It is designed to support individual work station use by providing standardized entry, maintenance, storage, and retrieval of toxicity test information.

PC-CETIS has been chosen to interface with the EPA's new BIOS toxicity test information system. It currently uploads data into the Complex Effluent Toxicity Information System (CETIS), a national toxicity test information system maintained by EPA's National Computer Center (NCC) which is available to users of STORET, the Agency's water quality monitoring data base. PC-CETIS can be used independently to store and access toxicity test information.

Information available in the PC-CETIS system includes:

- Facility and receiving water information identifying and characterizing the discharger and discharge conditions.
- Test parameter information such as: sample, test, water chemistry, QA/QC, and organism information.
- Test result information for acute and chronic tests such as: concentration, effect, and statistical method information.

PC-CETIS system features include:

- Comprehensive modularized data entry quality assurance validation.
- User-friendly design including on-line user help function and expandable set of system utilities.
- Complete system security including password protection.
- Extensive set of print/view retrieval functions.
- Updates to reflect current toxicity testing methodologies.

### U.S. Environmental Protection Agency (Continued)

For more information, contact:

(218) 720-5714

U.S. Environmental Protection Agency (Duluth, Minnesota) Office of Research and Development Environmental Research Laboratory

#### Toxic Chemical Release Inventory System (TRIS)

The Toxic Chemical Release Inventory System (TRIS) is an automated data base containing information on the annual estimated releases by industry of approximately 300 toxic chemicals to the environment. The reporting of these release results is required by Section 313 of the Superfund Amendment and Reauthorization Act of 1986.

Information in the system includes:

- The names, addresses, and public contacts of plants manufacturing, processing, or using the reported chemicals.
- The maximum amount of toxic chemicals stored on site.
- The estimated quantity emitted into the air, discharged into bodies of water, injected underground, or released to land.
- Methods used in waste treatment and their efficiency.
- Information on the transfer of chemicals off-site for treatment or disposal, either to publicly owned treatment works or elsewhere.

EPA maintains TRIS on the EPA IBM 3090 mainframe computer at Research Triangle Park. It is available to EPA Headquarters program offices, EPA Regions, and States. The system is publicly accessible on the National Library of Medicine's Toxicity Data Network (TOXNET).

### U.S. Environmental Protection Agency (Continued)

For more information, contact:

(202) 382-3757 U.S. Environmental Protection Agency Office of Pesticides and Toxic Substances Office of Toxic Substances Information Management Division

or

(301) 496-6531 National Library of Medicine Specialized Information Services

### U.S. Geologic Survey

The U.S. Geologic Survey (USGS) maintains the National Water Data Exchange (NAWDEX) data base system which includes two major automated water data bases. These are the Master Water Data Index and the Water Data Sources Directory.

### Master Water Data Index (MWDI)

The Master Water Data Index (MWDI) identifies more than 450,000 sites for which water information is available. The information is provided by over 400 organizations and includes the geographic location of these sites, the information-collecting organization, the type of information available (conductance, sediment concentration, pesticides, and so on), the periods of time for which information is available, the frequency of measurement of the parameters, and the media in which the information is stored.

#### Water Data Sources Directory (WDSD)

The Water Data Sources Directory (WDSD) identifies organizations that collect water information, the locations within these organizations from which water information may be obtained, the geographic areas in which an organization collects water information, and the types of water information collected and available.

# U.S. Geological Survey (Continued)

The MWDI and the WDSD data bases contain common identifiers that allow them to be used together. For example, MWDI may be used to identify what type of water information is available in a geographic area and WDSD may, then, be used to obtain the names and addresses of the organizations from which the identified information may be obtained.

For further information about NAWDEX or its information systems and services, call or write to the NAWDEX Program Office of USGS in Reston, Virginia, at the following address:

(703) 648-5684 FTS 959-5684 U.S. Geological Survey National Water Data Exchange (NAWDEX)

## Water Data Storage/Retrieval System (WATSTORE)

The Water Data Storage/Retrieval System (WATSTORE) is an electronic data base that contains location, chemical, and flow information on surface and ground water collected by the Water Resources Division of USGS to support its program staff. WATSTORE was designed to help USGS decision makers survey, assess, and report on the status of the nation's waters.

#### Information collected includes:

- Streamflow, and stage information for over 30,000 sites.
- Peak flow information at over 23,000 sites.
- Chemical analyses of surface and ground water quality including information on sediment concentration at over 300,000 sites.
- Inventory and descriptive information about ground water at over 1,000,000 sites.

For more information, contact:

(703) 648-5659 (WATSTORE)
U.S. Department of the Interior
U.S. Geologic Survey
Water Resources Division

# U.S. Geological Survey (Continued)

## National Water-Use Data System (NWUDS)

The National Water-Use Data System (NWUDS) is a water-use information storage and retrieval system maintained by USGS. The system is comprised of two parts: the Site-Specific Water-Use Data System (SSWUDS) and the Aggregated Water-Use Data System (AWUDS). The Site-Specific Water-Use Data System contains water-use information for individual users or systems, and includes five types of data files: water use, measurement point, conveyance, annual measurements, and extended data. States routinely collect information in these areas for inclusion in the system, but the level of detail and coverage varies from State to State.

The Aggregated Water-Use Data System contains information for 12 major categories of water use. The categories are public supply, domestic, commercial, industrial, mining, energy (including thermoelectric, nuclear, geothermal, and hydroelectric power generation), irrigation, livestock, and sewage treatment. The information is aggregated by county and hydrologic subregion. The latest information available is for 1985 and plans are to update the system with 1990 information.

For more information, contact:

(703) 648-5670 U.S. Department of the Interior U.S. Geological Survey Branch of Water-Use Information

#### U.S. Fish and Wildlife Service

# National Wetlands Research Center Data Base (NWRCDB)

The National Wetlands Research Center Data Base (NWRCDB) provides information related to the U.S. Fish and Wildlife Service (USFWS) mission in wetland and coastal areas. This information is used to provide natural resource inventories for selected geographic areas which are displayed as statistical maps developed by using geographic information systems (GIS). Although most of the information in the system pertains to the Gulf of Mexico region, information on other areas of the United States is also included on a project-specific basis.

## U.S. Fish and Wildlife Service (Continued)

The type of information in the system includes:

- Characterization of various types of coastal habitats.
- Sources of pollution.
- Biological community modeling.
- Waterfowl population statistics.

In addition to the NWRC Data Base, the National Wetlands Research Center also provides documents, publications, and graphics to support the USFWS in its programs related to wetlands resources and wintering waterfowl.

For more information, contact:

(504) 646-7564 U.S. Department of the Interior U.S. Fish and Wildlife Service National Wetlands Research Center

## National Wetlands Inventory Digital Data Base

The National Wetlands Inventory (NWI) is constructing a georeferenced wetland data base using GIS technologies. To date, more than 5,700 NWI maps, representing 10.5 percent of the continental United States, have been digitized. State-wide data bases have been built for New Jersey, Delaware, Maryland, Illinois, Indiana, and Washington and are in progress for Virginia. NWI digital data also are available for portions of 25 other States.

Copies of data base files can be purchased from the National Wetlands Inventory Offices in St. Petersburg, Florida (813) 893-3873. Other products that are available include acreage statistics by quad, county, or study area, and color-coded wetland maps. These digital data are being used for such applications as resource management planning, impact assessment, wetland trends analysis and information retrieval.

### U.S. Fish and Wildlife Service (Continued)

#### List of Plants That Occur in Wetlands

The Wetland Plant List data base is a listing of plants associated with wetlands, as defined by USFWS's wetland definition and classification system. It lists scientific and common names of plants, their distribution, and regional wetland indicator status of almost 6,700 species. It can be accessed by plant name, region, State, and wetland indicator status. The data base is updated as additional information is received. Regional subdivisions of the Wetland Plant List data base are available.

For more information, contact:

(303) 491-7767 Colorado State University Office of Conference Services

State subdivisions of the Wetland Plant List data base also are available in a wide variety of formats.

For more information, contact:

(303) 987-2557 BIO-DATA, Inc.

#### **Wetlands Values Citation Data Base**

The Wetlands Values Citation Data Base is a bibliographic listing of over 14,000 scientific articles concerning the functions and values of wetlands. The data base includes a number of fields with information on the author, year, sequence, title, source, and subject of each article.

For more information, contact:

(703) 358-2201 U.S. Fish and Wildlife Service Branch of Special Projects

### **U.S.** Coast Guard

# Chemical Hazards Response Information System and the Hazard Assessment Computer System (CHRIS/HACS)

The Chemical Hazards Response Information System (CHRIS) provides timely information essential for proper decision making by responsible Coast Guard personnel and others during emergencies involving the water transport of hazardous chemicals. CHRIS consists of a set of manuals and two computerized components, the Hazard Assessment Computer System and MicroHACS. The manuals provide detailed information on the chemical, physical, and biological properties of over 1,000 chemicals. Hazards for each chemical are identified, as are appropriate responses in the event of an accidental release.

The HACS component of CHRIS provides detailed information on the fate of the chemical once released and defines the extent and duration of the hazards that can be expected. MicroHACS is a new and updated version of the HACS program which contains improved spill models, user-friendly input and output routines, and graphical contour plotting capability. MicroHACS and HACs both provide hazard assessments for water spills; however, MicroHACS has the added capability to provide hazard assessments for land spills.

For more information, contact:

(202) 267-0001 U.S. Department of Transportation U.S. Coast Guard

# U.S. Coast Guard (Continued)

## Marine Pollution Retrieval System (MPRS)

The Marine Pollution Retrieval System was designed in response to the regulations stemming from the Federal Water Pollution Control Act of 1972. This system is used to assist the Coast Guard in compiling and retrieving information about pollution incidents occurring on or near the navigable waters of the United States. Included in these historical documents is information about spill location, type, and amount of product spilled, size and type of vessel or non-vessel (i.e., trains, facilities), cause of the incident, and agency responsible for overseeing the cleanup. The Coast Guard uses this information to respond to Congressional, Federal, internal, and private inquiries about past pollution incidents.

For more information, contact:

(202) 267-0450 U.S. Department of Transportation U.S. Coast Guard

### National Oceanic and Atmospheric Administration

# National Environmental Data and Referral Service Data Base (NEDRESDB)

The National Environmental Data and Referral Service (NEDRES) within the National Oceanic and Atmospheric Administration (NOAA) maintains an automated data base that identifies the existence, location, characteristics, and availability of environmental information collected and maintained by Federal, State, and local government organizations, and private and academic institutions. Environmental information referenced by the NEDRES data base includes climatological, meteorological, oceanographic, geophysical, geographic, hydrological, limnological, ecological, toxic pollution, and satellite remote sensing information sources. NEDRES documents over 22,000 data sets that are accessible using a personal computer and telecommunication networks.

### National Oceanic and Atmospheric Administration Continued)

For more information, contact:

(202) 606-5594
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Data and Referral Service

# National Marine Pollution Information System (NMPIS)

The National Marine Pollution Information System (NMPIS) is an automated catalogue containing descriptions of marine pollution research, development, and monitoring projects conducted or funded by agencies of the Federal government. Approximately 600 projects from 47 programs, funded by 11 Federal departments and agencies, are reported to NMPIS annually. Each project description includes:

- Project title, duration, and description.
- Principal investigator name, address, and organization.
- Funding sources and levels.
- Percentage of funds spent by region, zone, pollutant, polluting activity, and project activity.

The data base is updated annually by NOAA to satisfy legislative mandates contained in the National Ocean Pollution Planning Act (Public Law 95-273 and amendments).

NMPIS was developed cooperatively by the NOAA National Ocean Pollution Program Office (NOPPO) and the Ocean Pollution Data and Information Network (OPDIN), a cooperative effort of 11 Federal departments and agencies with responsibilities for various aspects of ocean pollution research and monitoring. The principal product generated from NMPIS is an annual publication, the National Marine Pollution Program Summary of Federal Programs and Projects, which includes descriptions of each Federally-funded project.

### National Oceanic and Atmospheric Administration Continued)

For more information, contact:

(301) 443-8823 U.S. Department of Commerce National Oceanic and Atmospheric Administration National Marine Pollution Information System

(202) 673-5539
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Ocean Pollution Data and Information Network

#### National Status and Trends Data Base (NSTDB)

The National Status and Trends Data Base (NSTDB) contains monitoring information collected through NOAA's National Status and Program for Marine Environmental Quality. Information from the Benthic Surveillance Project, Mussel Watch projects, special studies, and historical assessments are stored in this data base. The system contains both field and laboratory measurements of potentially harmful contaminants in fish, shellfish, sediments, and biological responses to contamination.

NSTDB has information from the Benthic Surveillance Project consisting of annual sampling from about 75 selected sites in the estuaries along the coasts of the United States. This includes concentrations of toxic chemicals in sediments and bottom dwelling fish (both taken at the same locations) and the frequency of external disease and internal poisons in the bottom fish. The system also includes annual sampling information from the zoo mussel watch sites nationwide. The type of information is the same as for the bottom fish in the Benthic Surveillance Project.

Information in NSTDB from the special studies provides information on biological properties such as reproductive impairment, genetic damage, and sediment toxicity, as well as contaminant concentrations.

To date, more than 65 publications, reports, technical memoranda, and presentations have been derived from National Status and Trends information. These reports are available upon request.

For more information, contact:

(301) 443-8815 U.S. Department of Commerce National Oceanic and Atmospheric Administration National Status and Trends Program

## Izaak Walton League of America

#### **Monitors**

Monitors is an automated list of all groups across the country that are involved in volunteer water quality monitoring and protection. It supports the Save Our Streams (SOS) national river protection program of the Izaak Walton League of America. The goal of SOS is to teach concerned citizens how to monitor and restore the nation's rivers. The Monitors data base includes listings ranging from people who are involved in only restoration, such as river clean-up projects, to those who monitor chemical, biological and physical parameters. Monitors lists people who monitor any type of surface water including rivers, lakes, wetlands and estuaries. The Monitors data base also includes the parameters which these groups monitor such as pH, dissolved oxygen, and benthic macroinvertebrates.

Computer printouts of data base information are available free to interested persons by contacting the League at the address below. Printouts can be given according to State, river name, or type of waterbody monitored, such as wetland or stream.

For more information, contact:

(703) 528-1818 Izaak Walton League Save Our Streams Data Base

# Selected Water Related Environmental and Program Information Systems Outside OW

#### American Water Works Association

#### Water Industry Data Base (WIDB)

The Water Industry Data Base (WIDB) includes profiles from surveys of 59,000 water supply systems in the United States by the American Water Works Association. The surveys collected information from water supply systems evaluating their treatment and distribution facilities, water quality information, financial management, and overall system characteristics. The data base will continue to expand as new water systems are added, as new information is collected, and as new sets of questions are surveyed.

Survey questions for which information has been collected cover six broad areas that are often used to profile water utility facilities. These areas profile the:

- Overall water system
- Surface water treatment plant
- Groundwater treatment
- Water quality monitoring
- Water distribution
- Financial information

#### WATERNET

The WATERNET data base is a comprehensive index of publications relating to drinking water and wastewater treatment. Brief abstracts accompany most references; all AWWA publications are abstracted. Records are indexed using terms from the WATERNET *Thesaurus*.

WATERNET provides international coverage of books, journal articles, government reports, conference proceedings, handbooks, manuals, and miscellaneous technical reports on the following subjects:

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# Selected Water Related Environmental and Program Information Systems Outside OW

# American Water Works Association (Continued)

- Drinking Water Industry
- Water Pollution
- Waterborne Diseases
- Watershed Management
- Wastewater Treatment
- Water Conservation
- Water Utility Management
- Distribution Systems
- Automated Process Control
- Water Treatment
- Water Quality
- Water Use
- Sludge Disposal
- Water Rates
- **■** Wastewater Reuse
- Desalination
- Water Analysis
- Litigation and Water

For further information, contact:

(303) 794-7711 American Water Works Association

Assistant Administrator Associate Assistant Administrator AAA AC&C Abatement Control and Compliance ADP Automated Data Processing AED Analysis and Evaluation Division (OWRS/OW) ΑO Administrative Order **AQUIRE** AQUatic Information REtrieval Data Base *ARTFO* Alaska Restoration Task Force Office (OMEP/OW) **ASIWPCA** Association of State and Interstate Water Pollution Control Administrators ATS Administration Training System Assessment and Watershed Protection Division **AWSPD** (OWRS/OW) BASIC Beginner's All-Purpose Symbolic Instructed Code BIOS BIOlogical System (STORET) BUD-2 Budget Form 2 CAS Chemical Abstracts Service **CETIS** Complex-Effluent Toxicity Information System CG Construction Grants CHRIS/HACS Chemical Hazards Response Information System/Hazard Assessment Computer System COBOL COmmon Business Oriented Langauage COE U.S. Army Corps of Engineers Criteria and Standards Division (both in ODW CSD and OWRS/OW) CWA Clean Water Act DA Deputy Administrator DAA Deputy Assistant Administrator DCN Document Control Number **DFS** Daily Flow System (STORET) DMR Discharge Monitoring Report DRASTIC Depth, Recharge, Aquifer, Soil, Topography, Impact (of the Vadose Zone), Conductivity Model DWRIA Drinking Water Regulatory Impact Analyses DWS Drinking Water Supply File

U.S. EPA/OW

DYNHYD5
DYNTOX
Dynamic Hydrodynamic Model
DynamicToxicity Model
Enforcement Division (OWEP/OW)
EFG
Effluent Guidelines Studies

**EFIN** Environmental Financing Network

**EPA**U.S. Environmental Protection Agency
Exams-II
Exposure Analysis Modeling System II
FGETS
Food and Gill Exchange and Toxic Substances

Model

**FK** Fish Kill File (STORET) **FRDS** Federal Data Reporting System

FSTRAC Federal/State Toxicology and Regulatory

Alliance Commission

FTE Full Time Equivalent (workyear)

**GCD** Gage, City, and Dam File

GICS Grants Information and Control System

**GIS** Geographic Information System

**GNIS** Geographic Names Information Service Ground Water Management and Policy Staff

(OGWP/OW)

HARTS
 Health Advisory Request Tracking System
 Health Effects Branch(CSD/ODW/OW)
 HSPF
 Hydrological Simulation Program-FORTRAN

**HWIWDB** Hazardous Waste Injection Well Data Base

**IFD** Industrial Facilities Discharge File

Immediate Office (OW)

IRIS Integrated Risk Information System
IRIM Information Resources Management

ITD Industrial Technology Division (OWRS/OW)

**L** Lists

**LOE** Level of Effort

MCD Municipal Construction Division OMPC/OW)

MCL Maximum Contaminant Level

MFD Municipal Facilities Division (OMPC/OW)
MOD Marine Operations Division (OMEP/OW)
MPRS Marine Pollution Retrieval System

NAWDEX National Water Data Exchange
NCC National Computer Center

NEDRES	National Environmental Data and Referral Service
NMPIS NOAA	National Marine Pollution Information System National Oceanic and Atmospheric Administration
NODC NPDES	National Oceanographic Data Center National Pollutant Discharge Elimination System
NPRM NPS	Notice of Preliminary Rule Making National Pesticides Survey Budget Tracking System
NS NSTDB NTIS	Needs Survey National Status and Trends Data Base National Technical Information Service
OATS OCPSF	Office Activities Training System Organic Chemicals, Plastics, Synthetics, and Fibers
ODES ODW OGWP	Ocean Data Evaluation System Office of Drinking Water Office of Ground-Water Protection
OIRM OMEP OMPC OMSE OPDIN	Office of Information Resources Management Office of Marine and Estuarine Protection Office of Municipal Pollution Control Office of Monitoring Systems and Evaluation Ocean Pollution Data and Information Network
OPTS OW OWDC OWEP OWP	Office of Pesticides and Toxic Pollutants Office of Water Office of Water Data Coordination Office of Water Enforcement and Permits Office of Wetlands Protection
OWRS PAD PC PC&B PC-CETIS	Office of Water Resources and Standards Planning and Analysis Division (OMPC/OW) Personal Computer Personnel Compensation and Benefits Personal Computer-Complex-Effluent Toxicity Information System

PCS PD PD&ED PIRS PMSS	Permit Compliance System Permit Division (OWEP/OW) Program Development and Evaluation Division (ODW/OW) Pollution Incident Reporting System Policy and Management Support Staff (OMEP/OW)
POTW PRZM PWS PWSS QUAL2E	Publicly Owned Treatment Works Pesticide Root Zone Model Public Water Supply Public Water Supply Supervision Program Stream Water Quality Model 2
RAD RCRA RF RFMS RIA	Regulatory Activities Division (OWP/OW) Resource Conservation and Recovery Act Reach File Reach File Management System Regulatory Impact Analysis
RMAO	Resources Management and Administration Office (IO/OW)
RUQUS RUSTIC	Review, Update, and QUery System Risk Unsaturated/Saturated Transport and Transformation for Chemical Concentration
S&E SAIMS	Salaries and Expenses Source Assessment Information and Management Staff (OGWP/OW)
SAS SDWA SIC SPD SRF	Statistical Analysis Software Safe Drinking Water Act Standard Industrial Code State Programs Division (ODW/OW) State Revolving Fund
STARS STB	Strategic Targeted Activities For Results System Science and Technology Branch (CDS/ODW/OW)
STORET SWMM TA	STOrage and RETrieval Data Base Stormwater Management Model Travel Authorization

**TMDL** Total Maximum Daily Load **TOXNET** Toxicology Data Network TRAS Technical and Regulatory Analysis Staff (OGWP/OW) TRI Toxic Chemical Release Inventory **TSD** Technical Support Division (both in ODW and OMEP/OW) TSP Time Series Process TVA Tennessee Valley Authority UIC Underground Injection Control UICS Underground Injection Control Program Summary System **USFWS** U.S. Fish and Wildlife Service USGS U.S. Geologic Survey WASP4 Water Analysis Simulation Program WATSTORE Water Data Storage/Retrieval System **WBS** Waterbody System WHP Wellhead Protection WIC Washington Information Center WPO Water Policy Office (IO/OW) WQS Water Quality System (STORET)

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