

EPA 600/5-74-022

August 1974

Socioeconomic Environmental Studies Series

Demonstration of a State Water Quality Management Information System



Office of Research and Development
U.S. Environmental Protection Agency
Washington, D.C. 20460

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EPA-600/5-74-022
August 1974

DEMONSTRATION OF A STATE
WATER QUALITY MANAGEMENT
INFORMATION SYSTEM

by

Commonwealth of Pennsylvania
Department of Environmental Resources
Bureau of Water Quality Management

Project S-801000
Formerly 16090DRA
Program Element 1BA030
ROAP/Task 21 AQT-03

Project Officer
Ronald E. Bunce
Region III
Environmental Protection Agency
Philadelphia, Pennsylvania 19106

Prepared for
Washington Environmental Research Center
U. S. Environmental Protection Agency
Washington, D. C. 20460

ABSTRACT

This report is a documentation of the Pennsylvania Water Quality Management Information System (WAMIS). The report is divided into two volumes. The first is a program manager's overview of the system, while the second is a compilation of elements required for system application. The program manager's overview discusses the objectives of the system and its development, describes the operations of the various system modules, including required inputs and outputs as well as uses to which the system may be put, estimates manpower and operating cost requirements, and summarizes methods for system application. Detailed documentation of elements required to apply the existing three system modules - the Facility Status, Water Quality, and Contact Modules - is included in Volume II. Volume II includes system inputs with detailed coding instructions, sample output reports, and documentation of each of the three system modules. Module documentation is comprised of system inputs and outputs, system flowcharts, system books, control procedures, clerical procedures, operator's instructions, and all program books. Sufficient information is provided to enable application of WAMIS modules by other states or jurisdictions.

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ACKNOWLEDGEMENTS

This final report was authored by Dr. C. J. Touhill, at Environmental Quality Systems, Inc., Rockville, Maryland, and was based on work done previously by the Department of Environmental Resources of the Commonwealth of Pennsylvania, both in-house and by contractors. The author gratefully acknowledges the cooperation of Mr. Walter A. Lyon, Director of the Bureau of Water Quality Management, Department of Environmental Resources, and Mr. Richard L. Stalker, Chief of the WAMIS Section, and his staff who assisted in assembling the many information sources and other materials related to previous work which was necessary to compile the report.

The support of the Pennsylvania Science and Engineering Foundation which enabled the accumulation of vital technical data included in the Pennsylvania Water Quality Management Information System is gratefully acknowledged.

SECTION I

INTRODUCTION

In the early 1960's, it became apparent that the combination of intensified efforts to enhance water quality and the accelerating accumulation of information relative to water quality management required highly sophisticated techniques for managing such information. At that time, high-speed electronic computers already had demonstrated great promise for handling masses of information for other purposes. Hence, it became obvious that the formulation of water quality management data systems using computers would become essential in guiding many of the policy decisions of the coming decades.

Toward that end, the Conference of State Sanitary Engineers, in November 1963, formed the Joint Committee on Water Quality Management Data. Other organizations represented on the Committee were: U.S. Army Corps of Engineers, Soil Conservation Service, State and Interstate Water Pollution Control Administrators, U.S. Geological Survey, U.S. Public Health Service, and later, the Federal Water Pollution Control Administration. In May of 1967, the Committee issued a report entitled, "Water Quality Management Data Systems Guide". The primary purpose of this manual was "... to provide a guide to the development of water quality management data systems for agencies which have little or no experience in this field, and to develop compatibility among agencies already having water quality data systems".

During the period when the Committee was formulating their manual, the Federal Water Pollution Control Administration established their own management information system, STORET. FWPCA, and successor organizations, used this computer-oriented management information system for storage and retrieval of water quality, municipal and industrial facility inventory, fish kill, oil spill, construction cost, and other related data. However, during the middle to late 1960's, when the STORET system was being evolved, state agencies recognized the need to tailor data systems for their specific locale and needs.

The Commonwealth of Pennsylvania has in place a massive investment in physical facilities intended to aid in the management of its water resources. The current investment is estimated to be about \$10 billion, with an investment growth rate of about \$1.5 billion per year. In administering the wise use of this investment, and in assuring compliance with federal and state statutes designed to protect water resources, the Commonwealth's Bureau of Water Quality Management is faced with managing a massive amount of information. Table 1 gives an indication of the breadth and scope of information which bears directly on the Bureau's ability to manage effectively.

Because of the magnitude of information to be collected, stored, retrieved, and analyzed, the concept of a state-wide Water Quality Management Information System (WAMIS) was developed.

Table 1. BUREAU OF WATER QUALITY MANAGEMENT PROGRAM STATISTICS

Miles of Streams	50,000
Square Miles of Groundwater	45,000
Number of Dams	2,700
Number of Sewerage Treatment Plants	2,600
Number of Industrial Waste Treatment Plants	2,500
Number of Water Works	1,300
Number of Swimming Places	3,600
Number of Encroachment Permits	35,000
Number of Inspections Per year	17,650
Number of Enforcement Actions Per year	830
Number of Permits Issued Per Year	2,200
<u>Number of Operators Certified</u>	<u>4,100</u>

This information system reflected the objectives of the Joint Committee "manual" and, additionally, incorporated objectives related to specific problem areas peculiar to the State of Pennsylvania.

The Water Quality Management Information System (WAMIS) was intended to:

1. plan inspections;
2. measure progress in terms of enforcement, construction schedules, and upgrading water quality;
3. assess permit coverage;
4. identify problem areas and priorities;
5. determine specific treatment, research and development, and budgetary needs;
6. monitor operation reports;
7. issue and monitor certificates to operators;
8. prepare mailing lists;
9. monitor ground and surface water quality;
10. assist in planning;
11. collate, file and disseminate information; and
12. respond to federal reporting requirements.

The subsequent chapter defines the system objectives as perceived at the time of project initiation, and then describes how these objectives were modified through experience with the project during later years. In addition, the current status and future plans for the State Water Quality Management Information System (WAMIS) are identified.

SECTION II

SYSTEM OBJECTIVES

The Commonwealth had recognized the need for managing the growing mass of water quality information well in advance of the demonstration project application and had taken steps toward building a coordinated system. Although some of the information was manipulated manually, it is interesting to note that three of the principal criteria continue to guide its evolution even today. First, the system was conceived as being specifically tailored to meet state needs. Second, the system was intended to be versatile, dynamic, and expandable in order to fulfill changing needs, and third, individual components of the system were to be interrelated so that these components could be used separately to serve a specific need, or together to achieve an overall coordinated result.

The project objectives specified for the initial demonstration project were as follows:

"To demonstrate a state-wide water quality management information system, including case status, project status, water quality control, and plant operation control systems."

At the time of project initiation, the State already had designed three systems, previously manually manipulated, which required that a total of 30 programs be written as part of the project. These three systems were the Project Status, Case Status, and Water Quality systems. Some of the initial objectives of each system were:

A. Project Status System

1. To evaluate the constantly changing status of facilities being constructed and/or modified to abate water pollution and to assure adherence to the Pennsylvania Clean Streams Law, as amended.
2. To answer requests from other agencies, organizations, governmental bodies (federal, interstate, state and local), and individuals in regard to the latest information on a state-wide, county and/or municipality basis. Types of requests to be answered would be: status of construction of projects; status of grants.

3. To record:

- a. construction in progress
- b. cost of projects
- c. amounts, kinds and types of grants applied for
- d. amounts, kinds and types of grants received
- e. adherence to construction schedules

B. Case Status System

- 1. To maintain an inventory of water supply, sewerage, industrial waste, bathing place and beach facilities within the Commonwealth.
- 2. To monitor adherence of all facilities to:
 - a. the Clean Streams Law
 - b. permit conditions
 - c. orders of the Sanitary Water Board
 - d. enforcement actions
 - e. implementation plans submitted to the Federal government
- 3. To answer questions from agencies, organizations, governmental bodies (Federal, state, interstate, and local), and individuals in regard to the latest information on a state-wide, county and/or municipality basis. Types of requests to be answered could include: status of case(s), status of facility (facilities).

C. Water Quality System

- 1. To record all water and waste quality samples gathered in the Commonwealth from:
 - a. industrial waste facilities
 - b. sewerage facilities
 - c. water supply facilities
 - d. bathing places and beaches
 - e. mine drainage
 - f. surface waters
 - g. ground waters
- 2. To compare the laboratory results of samples with existing water quality criteria or existing effluent standards and to inform management of exceptions so that corrective action may be initiated.

3. To maintain two major files which would include information on the quality and characteristics of the water and the nature of the pollutants in the waters within the Commonwealth.
 - a. STORET I - All stream water and waste quality samples
 - b. STORET II - All non-stream water and waste quality samples
4. To retrieve data from the files to facilitate management of water quality.

It was planned to convert existing records on water quality samples to STORET I and STORET II coding and prepare this data for computer input.

In addition to programming of the aforementioned systems, two systems were to be designed as part of the project. The Plant Operation Control (POC) system was to be designed to monitor the operating performance of water and wastewater treatment plants. The system would determine which plants meet standards and would show the quality and quantity of discharges. The system also would identify missing required reports.

The second system to be designed would be logic checking of input for the Case Status System. The system would verify input data to assure adherence to enforcement policies, as well as the internal consistency of the data.

During the first phase of the project, a concept of a comprehensive water quality management information system was crystallized. The concepts which guided the initial approach were formalized and ordered within a coordinated system. The system was visualized as ultimately being comprised of eleven semi-autonomous system modules, each of which, although inter-related, could be operated independently of the others. These modules and their intended purpose were as follows:

1. Application Review Module
Reviews routine permit application.
2. Application Permit Module
Records and reports status of application prior to and after permit approval.
3. Grants Module
Records and reports data on federal and state grants.

4. Project Status Module

Records and reports data on needed facilities and tracks those under construction.

5. Contact Module

Contains names, addresses, titles, and certification data on individuals, agencies and organizations having responsibility for or interest in water quality management.

6. Facility Status Module

Contains all facilities impinging on state's water system. Reports on design, inspection, enforcement, and identification data.

7. History Module

Contains historical data on inspections, enforcements, and operator changes and design specifications no longer carried in appropriate files.

8. Plant Operation Control Module

Monitors plant operating performance based on data submitted by plant operator.

9. Water Quality Module

Files information on field and laboratory analyses of samples. Compares sample results to performance and stream standards.

10. Pollution Status Module

Reports data on single pollution incidents such as fish kills and complaints.

11. Water Usage Module

Reports data of past, present and projected water use.

With the completion of the comprehensive system design, the priorities for completion of the newly defined modules were re-evaluated. It should be noted that there was a certain amount of amalgamation in the comprehensive system design, as compared with the original system objectives. Also, the Case Status System was renamed as the Facility Status Module. First priority for completion was assigned to the Facility Status and Water Quality Modules.

Objectives during the second phase of the project reflected the accomplishment of the first, principally through the comprehensive system design. Specific second phase objectives were to:

1. do the necessary programming and data processing so as to test, evaluate and demonstrate management information systems techniques related to the Contract, Project Status, Plant Operation Control and Water Quality Modules;
2. convert existing information handling techniques to modern EDP techniques;
3. design specific modules for: Plant Operation Control Application Permits, Grant Status and Project Status. Complete the design of the Water Quality Module.

In addition, work was to continue on the module furthest developed, the Facility Status Module.

During the second phase of the project, the Facility Status, Water Quality, and Contact Modules became operational.

The third phase anticipated that the Plant Operation Control, Project Status, Grants, and History Modules would be made operational; and if time and funds permitted, design of the Application Permit Module would be completed. In actuality, however, these objectives were not achieved.

A principal reason for not achieving these goals is one commonly encountered in the implementation of automated data systems. As ambitious and pervasive computer programs are designed, developed, debugged, and eventually run on "live" data, detailed operational problems become evident. In addition, there is a "learning curve" associated with educating persons with responsibility for coding input data. The ensuing problems, while not major in terms of the overall system concept, lead to time-consuming and sometimes tedious attention to detail. Such was the case during the third phase. The time between making a module operational on test data and arriving at routine implementation was underestimated. Hence, a major amount of effort was expended in completing unanticipated detailed tasks. It appears, however, that these problems have been surmounted, and that WAMIS

is an integral part of the Bureau of Water Quality Management's activities. Now it is used routinely and greatly simplifies the myriad facets of data management encountered by the Bureau.

Additionally, during the third phase of the project, it became apparent that the modularized system concept required modification. Data flow between modules indicated a much greater interdependence than originally visualized. Therefore, steps were taken to integrate the various modules into a more coherent system. Although the term "module" emphasizes a relatively self-contained element in the overall system, the term was preserved as greater integration resulted in order to avoid any potential for confusion by WAMIS users, even though it was recognized that the system elements were not truly modularized.

During the third phase, it became apparent that new developments had been made by the Environmental Protection Agency in data systems management, and the Bureau believed that certain EPA data systems might be able to handle some of the projected effort specified in the WAMIS Work Plan. Thus, considerable time was devoted to investigating such possibilities.

Hence, currently the three operational systems are the Facility Status, Water Quality, and Contact Modules. Most of the work during the third phase was devoted to improving these modules, in particular, the Water Quality Module. The Water Quality Module was almost completely redesigned and reprogrammed based on greater use of the EPA STORET System.

Considerable effort also was expended in developing a long-range Work Plan for WAMIS, in investigating the potentials for interfacing with EPA data systems, and in developing a preliminary design concept for the Plant Operations Control (POC) Module and Project Review and Permit (PREP) Module. As currently envisioned, the objectives of the POC Module are to: 1) monitor and report on effluent requirements and plant and system operations requirements for all wastewater discharges; 2) monitor and report on important water quality characteristics in public water supplies and waterworks operations requirements; and 3) originate violation and enforcement action reports.

The objectives of the PREP Module, on the other hand, are to monitor and report on time-constrained events such as: permit applications, projects submitted for review by other agencies, and conditions, decisions and actions related to project permits, certifications, and approvals. PREP may ultimately combine elements of the Application Review and Application Permit Modules previously discussed.

In terms of current status, the Facility Status Module has been operational for nearly two years. It contains information on wastewater facilities, water supply, bathing places, industrial wastes, and sewerage programs. Within the module, data is organized into three groupings. The first is descriptive information regarding the facility.

The second is a record of inspections for each facility, and the third is a record of enforcement actions for each facility. All three functions are used routinely. Records for over 36,000 facilities are maintained within the system.

Also within the Facility Status Module is the Enforcement Sub-system. The Sub-system contains information on each legal action with regard to a facility and then identifies each step in the legal process against that facility.

During November 1973, the revisions of the Water Quality Module were completed. This module stores pertinent water quality data on the Department Computer. The water quality data are currently being transferred to EPA's STORET system to make full use of its retrieval capabilities and options with an operational date of May 15, 1974.

The Contact Module contains two separate files. The Certified Operator Sub-system compiles data obtained from application forms submitted by operators and prints operators' certificates. Data is neither summarized nor manipulated, but is consolidated into a single report and interpreted for the user.

The Name and Address Sub-system contains 22 mailing lists with about 150 sub-lists. The lists cover many subjects and include all mailings lists for the Bureau of Water Quality Management.

In terms of future plans for the WAMIS System, the Bureau of Water Quality Management has produced an internal document entitled, "WAMIS Work Plan", which reflects currently envisioned plans for updates, modifications, and additions to the System. This document was first issued internally in memorandum format on August 21, 1973. On the basis of interviews with System users, most of the needs identified by management and field personnel have been taken into account in the Work Plan. The Work Plan is a "live" document which is continually updated as new ideas and needs arise.

Recently, information has been prepared by the Bureau of Water Quality Management to summarize for Department of Environmental Resources managers the manner in which WAMIS is expected evolve in the future. Figure 1 shows the inter-relationships of existing operational modules with those expected to be designed or implemented. Table 1 is an explanation of the types of information transferred between WAMIS elements as denoted by the numbered data flow routes. As had been previously noted, the Facility Status Module, including the enforcement and inspection sub-systems, is operational and used routinely. Likewise, the Name and Address and Certification sub-systems, which comprise the Contact Module, also are operational and used routinely.

Figure 1. WAMIS DATA FLOW

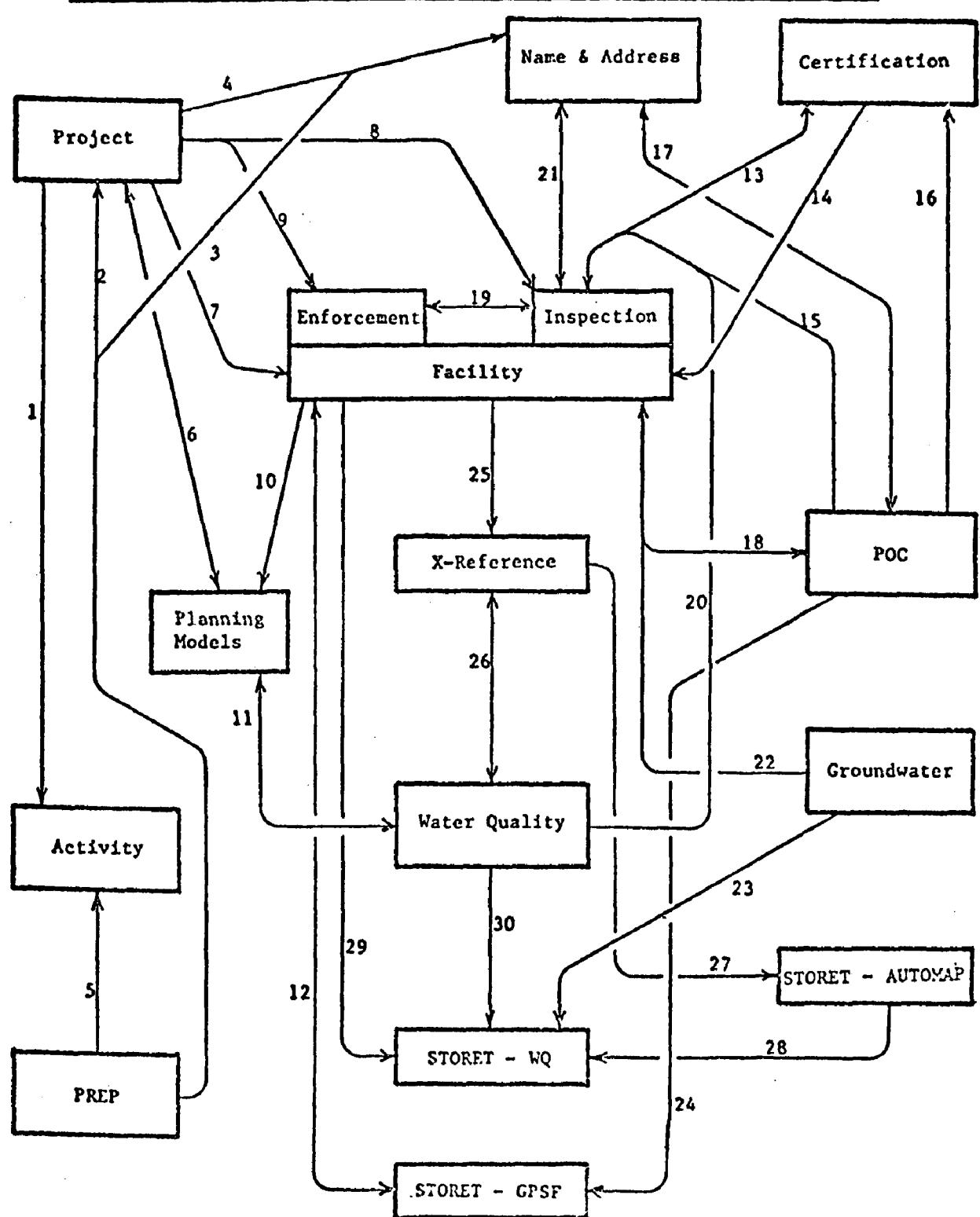


Table 2. WAMIS DATA FLOW ROUTES

-
1. Project to Activity
 - Workload
 2. PREP to Project
 - Need for a New Project
 3. PREP to Name & Address
 - Consultant
 - Responsible Person
 - Plant
 4. Project to Name and Address
 - Consultant
 - Responsible Person
 - Plant
 5. PREP to Activity
 - Workload
 6. Project to Planning
 - Proposed Projects Descriptions
 - Needs
 - Projects Under Construction

Planning to Project

 - Need for Project
 7. Project to Facility
 - Facility Description
 8. Project to Inspection
 - Need for Inspection
 - Schedule Compliance
 - Facility Completion
 9. Project to Enforcement
 - Non-Compliance with Schedule
 10. Facility to Planning
 - Descriptions of Existing Facilities

Planning to Facility

 - Recommended Permit Conditions
 11. Water Quality to Planning
 - Stream Quality
 - Effluent Quality

Planning to Water Quality

 - Stream Standards

(continued)

Table 2. (Continued).

-
- 12. Facility to STORET-GPSF
 - Facility Descriptions
 - Project Needs
 - Enforcement
 - STORET-GPSF to Facility
 - Facility Description
 - 13. Inspection to Certification
 - Operator Confirmation
 - Operator Changes
 - Certification to Inspection
 - Operator's Name and Class
 - Need for Inspection
 - 14. Certification to Facility
 - Operators Class
 - 15. POC to Inspection
 - Need for Inspection
 - Operator Change
 - Non-Compliance with Standards
 - Approaching Design Limits
 - 16. POC to Certification
 - Operator Identification
 - 17. POC to Name and Address
 - Address Changes
 - Name and Address to POC
 - Mailing Labels
 - 18. POC to Facility
 - Changes in System
 - Facility to POC
 - Permit Conditions
 - Facility Descriptions
 - 19. Inspection to Enforcement
 - Need for Action
 - Compliance Achieved
 - Confirm Condition
 - Enforcement to Inspection
 - Need for Inspection
 - Current Status

(continued)

Table 2. (Continued).

20. Water Quality to Inspection
 - Need for Inspection
 - Background
 - Historical
 21. Inspection to Name and Address
 - Address Changes

Name and Address to Inspection

 - Background
 22. Groundwater to Facility
 - Facility Description
 23. Groundwater to STORET-WQ
 - Station Description
 - Water Quality (Historical)
 24. POC to STORET-GPSF
 - Self Monitoring Reports
 25. Facility to X-Reference
 - I.D. Code
 - Lat/Long
 26. X-Reference to Water Quality
 - I.D. Code
 - Lat/Long

Water Quality to X-Reference

 - Lat/Long
 - Existence of Station
 27. X-Reference to STORET-AUTOMAP
 - Lat/Long
 28. STORET-AUTOMAP to STORET-WQ
 - RMI for Lat/Long
 29. Facility to STORET-WQ
 - Station Descriptions
 30. Water Quality to STORET-WQ
 - Water Quality
-

The Activity System, which monitors WAMIS work flow and work load currently, will become computerized. On the other hand, the Project System is expected to be merged with the Facility Status Module or the PREP Module. The Plant Operation Control (POC) and Project Review and Permit (PREP) Modules, as discussed previously, are in the system design state.

The Groundwater System, also referred to as G/WAMIS, was developed independently of the grant. It is a file containing data on all municipal water supply wells and springs. Technical well and spring data, and a limited amount of water quality data are available through the system in a computer printout which contains a complete listing of all facilities. G/WAMIS has no selective retrieval options, and no data manipulation programs are available at this time. Moreover, the G/WAMIS file is not cross-referenced with the WAMIS files. It is expected, however, that with future modification of the system, G/WAMIS will merge with the Facility Status and Water Quality Modules.

The Cross-Reference File of latitude-longitude coordinate data currently is used in conjunction with the Facility Status and Water Quality Modules. Only the STORET-WQ (Water Quality) module of those related to STORET is used. Data flow as currently practiced, from the Water Quality Module to STORET-WQ, will be described in a later section.

The planning module under development will interface with all other WAMIS systems. A waste-load allocation and stream quality model (UDOM) and economic-financial model (ECOFIN) are major components of the planning module. Most data used by these models will be accessed from the WAMIS data base.

The above models are major tools in using the WAMIS data base as a source in developing the long-range comprehensive water quality management plan (COWAMP) for the state. The plan has a direct impact on WAMIS in that it will depend extensively upon an up-to-date data base. Unlike other long-range plans which are often outdated by the time they are printed, COWAMP will interface directly with the department's day-to-day operations as they are reflected in the WAMIS data base. Thus, being a "computer plan" rather than a "paper plan", it can readily respond to physical, social, and economic change. Also, by being interactive with the WAMIS data base, the plan will be able to automatically up-date such items as treatment needs, waste-load allocations, and construction schedules.

In summary, the systems objectives as perceived at project initiation were focused during the first year and consolidated into a comprehensive modularized system design. Subsequent efforts integrated many elements of the modular concept into a more interdependent system; however, throughout this program, the general overall framework of system purposes has been maintained. Moreover, the objectives of providing

operational and usable systems having high priority in terms of Pennsylvania's needs was achieved. Most importantly, the need for using modern EDP in the management of masses of water quality information has been demonstrated and become widely accepted by Bureau of Water Quality Management personnel.

Additionally, a dynamic and flexible system has evolved which permits not only ready modification in order to meet changing state needs, but also has capability for incorporating advances in data systems technology.

SECTION III

SYSTEM DESCRIPTION

BACKGROUND

This section is intended to describe the three modules, Facility Status, Water Quality, and Contact Modules, in terms of system input, output, and uses. The purpose of the system description is twofold. First, it will provide existing users with an overview and thus aid in managing and using WAMIS. Second, it will provide other users with a concise resume of potential uses to which the system may be put in their areas of responsibility, and an indication of the types of input and output necessary for effective use of WAMIS.

FACILITY STATUS MODULE

General Description

The Facility Status Module maintains data which identifies all facilities impinging upon the state's water system and includes approved specification criteria for each facility. Facilities included are: water supplies, bathing places, sewage collection and treatment facilities, and industrial waste treatment facilities. The system maintains and processes (for status reporting and water quality management by exception) the complete inspection and enforcement history for each facility, as well as identification and design criteria.

Table 3 provides a complete list of Facility Status Module input and output forms and reports.

To aid in describing the various inputs and outputs of the module, the following discussion is arranged by form or report.

Input

1. Establishment, Case, and Facility Information -- In order to identify a facility in detail, establishment, case, and facility information must be input into the module by field personnel. Specific coding is required for each level of information in accord with the following precise definitions.

Establishment - a person or organization responsible for ownership for one or more cases within a physically contiguous location or municipality.

Case - a division of an establishment which performs a distinct function and operates independently of other cases of the establishment.

Facility - that portion of a case which performs a distinct water or wastewater handling function; the lowest functional component of a case.

An example of each level is illustrated by the following: establishment Pennsylvania State University, case -- New Kensington Campus, and facility -- extended aeration treatment plant.

In general, the type of information for each level input by field personnel into WAMIS is illustrated in Table 4. As noted in the table, facility information is highly detailed and serves to completely describe a facility for each of the four major program areas: the water supply, bathing places, industrial waste, and sewage programs. For facility information, data which is common to all programs is noted in the table under the "General" category.

Example input forms are shown in Figures 2 through 6.

Specific identification numbers for each establishment, case, and facility are assigned by regional office personnel. Likewise, forms to add, change, or delete any of this information is submitted by the field on an as-needed basis.

Initial collection and coding of this descriptive information is burdensome; however, once incorporated into the system, this information

Table 3. FACILITY STATUS MODULE INPUT AND OUTPUT FORMS AND REPORTS

Input

Establishment Information

Case Information

* Facility Information

* Inspection Reports

* Enforcement Status

STORET Cards

Latitude-Longitude Location Coordinates

Output

Facility File Listing

* Identification Report

* Addendum Report

* Enforcement Status Report

* Enforcement Status Listing

* Management Action -- Enforcement Report

Management Action -- Non-Enforcement Report

Enforcement Activity Report

Enforcement Status Totals

Enforcements in DSE Over One Year

Input Validation Error Listing

Update Master Activity List

STORET Error Listing

Cross Reference Update

* Used most frequently

Table 4. ESTABLISHMENT, CASE AND FACILITY INFORMATION INPUT

Establishment

Name

Ownership

Employer Identification

County

Municipality

Type (e.g., network stations, public or private
water supply, pools, beaches, industrial
wastes, mines, public or other sewage systems)

Case

Name

Ownership

Population Served

County

Municipality

Type

Establishment Cross-Reference (currently not used)

Latitude-Longitude (currently not used)

Facility

A. General --

Name

Ownership

Topographic Map Number

County

(continued)

Table 4 (continued).

Municipality

Population Served

Municipality Served

Flow

Year of Original Operation

Year of Last Improvement

Construction Cost (year-to-date and total for prior years)

Number of Violations for Previous Year

Weeks Between Inspections

Compliance Status (e.g., compliance, violation-satisfactory progress, violation-unsatisfactory progress)

Permit Coverage

Operational Status

B. Water Supply Program --

Source of Supply

 type (e.g., well, spring, infiltration gallery, natural or artificial lake, stream)

 safe yield

 pump capacity

 primary or secondary supply

 treatment

 aquifers

Treatment Plant

 design year

 design population

(continued)

Table 4 (continued).

design maximum flow
design average flow
degree of treatment

Distribution System

design year
design population
design average flow

Transmission Line

length
size
shape
type (e.g., force main, gravity, lift station)
difference in elevation
design year
design population
design maximum flow

Storage Unit

type (e.g., source storage, elevated, standpipe, reservoir)
capacity

C. Bathing Place Program --

Beach

bathing load
drainage area
length
depth

Pool

design year
bathing load
design capacity
source of supply
type of drainage
type of backwash disposal
type of housing

(continued)

Table 4 (continued)

Discharge Point

type (e.g., streams, lakes, ground water)
stream name
length of outfall
drainage area

D. Industrial Waste Program --

Production or Service Unit

SIC Code
type of primary and secondary supply
(e.g., well, spring, infiltration
gallery, natural or artificial
lake, stream, public supply)

Collection System

type (e.g., separate, combined or both)
population equivalent
design maximum flow

Conveyance System

type (e.g., force main, gravity,
lift station)
length
size
shape
difference in elevation
population equivalent served
design maximum flow
number of secondary discharges

Treatment Plant

population equivalent
design flow (maximum and average)
design organic load
design suspended solids load
degree of treatment
type treatment required and provided
waste characteristics

(continued)

Table 4 (continued).

Discharge Point

stream name
length of outfall
drainage area

Storage Unit

type (e.g., lined or unlined impoundment,
above or below ground tank)
capacity

E. Sewage Program --

Collection System

type of sewer (e.g., separate, combined,
or both)
design year
design population
design maximum flow

Interceptor

type (e.g., force main, gravity, lift
station)
length
size
shape
minimum grade
design year
design population
design maximum flow
number secondary discharges

Treatment Plant

design year
design population
design flow (maximum and average)
design organic load
design suspended solids load
type of treatment required and
provided

Discharge Point

type
stream name
length of outfall
drainage area

Figure 3

ER-BWQ-42 Rev. 2-73

COMPLETED BY
FIELD OFFICE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
SANITARY ENGINEERING

DATE

ESTABLISHMENT
CASE

FACILITY INFORMATION (WATER SUPPLY PROGRAM)												ID CODE 4-13																							
2		3		G ALL CARDS THIS SIDE												4		5		6		7		8		9		10		11		12		13	
C	A	Add	Change	Delete	F	ALL CARDS THIS SIDE											Ctry	Mun	T	Est	Case														
SOURCE OF SUPPLY												INCHES NORTH												INCHES WEST											
14-16	17-36	Facility Name										37-38	39-43	Map Number	44-48	Act Loc City	Mun	49-52	Act Pop Served	53-54	14-16	17-18	19	20-23	Sale Yield (Mgd)	24-27	Pump Cap (Mgd)	28	P/S Supply	29-31	Tr. At Source	32-35	Aqu. Mgd.		
Fac. No.												Owner			City		Mun	Pop Served	Year		Fac. No.		Type												
55-56	No.	57	Flow	58-59	Yr	60-61	Yr	62-65	Constr Cost Ytd	66-69	Constr Cost Prior Yrs	70-71	Vlo Last Year	72-73	Wks Bwn Insp	74-78	Compliance Fac Op	Fed Pmt	79-80	36-39	Aqu. Minor														
Mun Serv.		Status		Orig Op		Last Imp													Blank																
SOURCE OF SUPPLY												INCHES NORTH												INCHES WEST											
14-16	17-36	Facility Name										37-38	39-43	Map Number	44-48	Act Loc City	Mun	49-52	Act Pop Served	53-54	14-16	17-18	19	20-23	Sale Yield (Mgd)	24-27	Pump Cap (Mgd)	28	P/S Supply	29-31	Tr. At Source	32-35	Aqu. Mgd.		
Fac. No.												Owner			City		Mun	Pop Served	Year		Fac. No.		Type												
55-56	No.	57	Flow	58-59	Yr	60-61	Yr	62-65	Constr Cost Ytd	66-69	Constr Cost Prior Yrs	70-71	Vlo Last Year	72-73	Wks Bwn Insp	74-78	Compliance Fac Op	Fed Pmt	79-80	36-39	Aqu. Minor														
Mun Serv.		Status		Orig Op		Last Imp												Blank																	
TREATMENT PLANT												INCHES NORTH												INCHES WEST											
14-16	17-36	Facility Name										37-38	39-43	Map Number	44-48	Act Loc City	Mun	49-52	Act Pop Served	53-54	14-16	17-18	19-25	Type	26-29	Des Year	30-33	Des Pop	34-37	Des Mx Flow (Mgd)					
Fac. No.												Owner			City		Mun	Pop Served	Year		Fac. No.														
55-56	No.	57	Flow	58-59	Yr	60-61	Yr	62-65	Constr Cost Ytd	66-69	Constr Cost Prior Yrs	70-71	Vlo Last Year	72-73	Wks Bwn Insp	74-78	Compliance Fac Op	Fed Pmt	79-80	36-41	Des Av Flow (Mgd)	42-45		40-49		ED-53	Tr Lw R	P							
Mun Serv.		Status		Orig Op		Last Imp												Blank			Blank														
DISTRIBUTION SYSTEM												INCHES NORTH												INCHES WEST											
14-16	17-36	Facility Name										37-38	39-43	Map Number	44-48	Act Loc City	Mun	49-52	Act Pop Served	53-54	14-16	17-18	19-22	Des Year	23-26	Des Pop	27-30	Des Avg Flow (Mgd)							
Fac. No.												Owner			City		Mun	Pop Served	Year		Fac. No.														
55-56	No.	57	Flow	58-59	Yr	60-61	Yr	62-65	Constr Cost Ytd	66-69	Constr Cost Prior Yrs	70-71	Vlo Last Year	72-73	Wks Bwn Insp	74-78	Compliance Fac Op	Fed Pmt	79-80																
Mun Serv.		Status		Orig Op		Last Imp												Blank			Blank														
TRANSMISSION LINE												INCHES NORTH												INCHES WEST											
14-16	17-36	Facility Name										37-38	39-43	Map Number	44-48	Act Loc City	Mun	49-52	Act Pop Served	53-54	14-16	17-18	19	20-23	L. (MI.)	24-28	Size (Ft.)	27-28	Shape	29-32	Dirt. In Elevation (MI.)				
Fac. No.												Owner			City		Mun	Pop Served	Year		Fac. No.														
55-56	No.	57	Flow	58-59	Yr	60-61	Yr	62-65	Constr Cost Ytd	66-69	Constr Cost Prior Yrs	70-71	Vlo Last Year	72-73	Wks Bwn Insp	74-78	Compliance Fac Op	Fed Pmt	79-80	33-36	Des Yr,	37-40	Des Pop	41-44	Des Mx Flow (Mgd)										
Mun Serv.		Status		Orig Op		Last Imp												Blank			Blank														
STORAGE UNIT												INCHES NORTH												INCHES WEST											
14-16	17-36	Facility Name										37-38	39-43	Map Number	44-48	Act Loc City	Mun	49-52	Act Pop Served	53-54	14-16	17-18	19	20-23	Cap (Mg)										
Fac. No.												Owner			City		Mun	Pop Served	Year		Fac. No.														
55-56	No.	57	Flow	58-59	Yr	60-61	Yr	62-65	Constr Cost Ytd	66-69	Constr Cost Prior Yrs	70-71	Vlo Last Year	72-73	Wks Bwn Insp	74-78	Compliance Fac Op	Fed Pmt	79-80																
Mun Serv.		Status		Orig Op		Last Imp												Blank			Blank														

Figure 4

N710.055 Rev. 4/71

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
SANITARY ENGINEERING

DATE _____

COMPLETED BY
FIELD OFFICE _____

ESTABLISHMENT
CASE _____

1	2	3
C	Add	Change
A	C	Delete
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F ALL CARDS THIS SIDE		

FACILITY INFORMATION
(BATHING PLACES PROGRAM)

3				
G ALL CARDS THIS SIDE				
ID CODE 4-13				
Cnty	Mun	Y	Est	Case

BEACH										INCHES NORTH			INCHES WEST			3											
14-16	Fac. No.	17-36 Facility Name					37-38	39-43	Map Number	44-48	Act Loc	Cnty	Mun	49-52	Act Pop Served	53-54	14-16	Fac. No.	17-18	19-22	Bath Load	23-28	Drainage Area (Sq Mi)	29-31	Length (Feet)	32-34	Depth (Feet)
55 56 No.	57	58 59 Yr	60 61 Yr	62 65 Constr	66-69 Constr	Cost Prior Yrs	70-71 Vio	72-73 Wks	Bwn Insp	74-78	Compliance						14-16	Fac. No.	17-18	19-22	Bath Load	23-28	Drainage Area (Sq Mi)	29-31	Length (Feet)	32-34	Depth (Feet)

BEACH										INCHES NORTH			INCHES WEST			3											
14-16	Fac. No.	17-36 Facility Name					37-38	39-43	Map Number	44-48	Act Loc	Cnty	Mun	49-52	Act Pop Served	53-54	14-16	Fac. No.	17-18	19-22	Bath Load	23-28	Drainage Area (Sq Mi)	29-31	Length (Feet)	32-34	Depth (Feet)
55 56 No.	57	58 59 Yr	60 61 Yr	62 65 Constr	66-69 Constr	Cost Prior Yrs	70-71 Vio	72-73 Wks	Bwn Insp	74-78	Compliance						14-16	Fac. No.	17-18	19-22	Bath Load	23-28	Drainage Area (Sq Mi)	29-31	Length (Feet)	32-34	Depth (Feet)

POOL										INCHES NORTH			INCHES WEST			3										
14-16	Fac. No.	17-36 Facility Name					37-38	39-43	Map Number	44-48	Act Loc	Cnty	Mun	49-52	Act Pop Served	53-54	14-16	Fac. No.	17-18	19-22	Des Year	23-26	Bath Load	27-30	Design Capacity (Mg)	31 Source Water Supply
55 56 No.	57	58 59 Yr	60 61 Yr	62 65 Constr	66-69 Constr	Cost Prior Yrs	70-71 Vio	72-73 Wks	Bwn Insp	74-78	Compliance						14-16	Fac. No.	17-18	19-22	Des Year	23-26	Bath Load	27-30	Design Capacity (Mg)	31 Source Water Supply

POOL										INCHES NORTH			INCHES WEST			3										
14-16	Fac. No.	17-36 Facility Name					37-38	39-43	Map Number	44-48	Act Loc	Cnty	Mun	49-52	Act Pop Served	53-54	14-16	Fac. No.	17-18	19-22	Des Year	23-26	Bath Load	27-30	Design Capacity (Mg)	31 Source Water Supply
55 56 No.	57	58 59 Yr	60 61 Yr	62 65 Constr	66-69 Constr	Cost Prior Yrs	70-71 Vio	72-73 Wks	Bwn Insp	74-78	Compliance						14-16	Fac. No.	17-18	19-22	Des Year	23-26	Bath Load	27-30	Design Capacity (Mg)	31 Source Water Supply

DISCHARGE POINT										INCHES NORTH			INCHES WEST			3					
14-16	Fac. No.	17-36 Facility Name					37-38	39-43	Map Number	44-48	Act Loc	Cnty	Mun	49-52	Act Pop Served	53-54	14-16	Fac. No.	17-18	19-20	21-35 Stream Name
55 56 No.	57	58 59 Yr	60 61 Yr	62 65 Constr	66-69 Constr	Cost Prior Yrs	70-71 Vio	72-73 Wks	Bwn Insp	74-78	Compliance						14-16	Fac. No.	17-18	19-20	21-35 Stream Name

DISCHARGE POINT										INCHES NORTH			INCHES WEST			3					
14-16	Fac. No.	17-36 Facility Name					37-38	39-43	Map Number	44-48	Act Loc	Cnty	Mun	49-52	Act Pop Served	53-54	14-16	Fac. No.	17-18	19-20	21-35 Stream Name
55 56 No.	57	58 59 Yr	60 61 Yr	62 65 Constr	66-69 Constr	Cost Prior Yrs	70-71 Vio	72-73 Wks	Bwn Insp	74-78	Compliance						14-16	Fac. No.	17-18	19-20	21-35 Stream Name

Figure 5

ER712.121 Rev. 8/72

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

DATE _____

COMPLETED BY _____

FIELD OFFICE

1 2 3

C	Aud	Change	Delete
	C	D	

F ALL CARDS
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FACILITY INFORMATION
(INDUSTRIAL WASTE PROGRAM)

ESTABLISHMENT _____

CASE _____

ID CODE 4-13

Cnty Mun T Est Case

3
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PRODUCTION OR SERVICE UNIT

INCHES NORTH										INCHES WEST										
14-16	17-30	Facility Name								37-38	39-43	Map Number	44-48	Act Loc	49-52	53-54	14-16	17-18	19-22	Sic Code
Fac. No.										Owner	Cnty	Mun	Cnty	Mun			Fac. No.		Type	P/I Sup

COLLECTION SYSTEM

INCHES NORTH										INCHES WEST										
14-16	17-30	Facility Name								37-38	39-43	Map Number	44-48	Act Loc	49-52	53-54	14-16	17-18	19	Type
Fac. No.										Owner	Cnty	Mun	Cnty	Mun			Fac. No.		20-23	Blank

CONVEYANCE SYSTEM

INCHES NORTH										INCHES WEST										
14-16	17-30	Facility Name								37-38	39-43	Map Number	44-48	Act Loc	49-52	53-54	14-16	17-18	19	Type
Fac. No.										Owner	Cnty	Mun	Cnty	Mun			Fac. No.		20-23	Blank

TREATMENT PLANT

INCHES NORTH										INCHES WEST										
14-16	17-30	Facility Name								37-38	39-43	Map Number	44-48	Act Lnc	49-52	53-54	14-16	17-18	19-25	Type
Fac. No.										Owner	Cnty	Mun	Cnty	Mun			Fac. No.		26-29	Blank

DISCHARGE POINT

INCHES NORTH										INCHES WEST										
14-16	17-30	Facility Name								37-38	39-43	Map Number	44-48	Act Loc	49-52	53-54	14-16	17-18	19-20	Stream Name
Fac. No.										Owner	Cnty	Mun	Cnty	Mun			Fac. No.		21-30	Blank

STORAGE UNIT

INCHES NORTH										INCHES WEST										
14-16	17-30	Facility Name								37-38	39-43	Map Number	44-48	Act Loc	49-52	53-54	14-16	17-18	19	Type
Fac. No.										Owner	Cnty	Mun	Cnty	Mun			Fac. No.		20-23	Blank

STORAGE UNIT

14-16	17-30	Facility Name								37-38	39-43	Map Number	44-48	Act Loc	49-52	53-54	14-16	17-18	19	Type
Fac. No.										Owner	Cnty	Mun	Cnty	Mun			Fac. No.		20-23	Blank

Figure 6

ER 711.535 Rev. 4/72

COMPLETED BY _____
FIELD OFFICE _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

DATE _____

ESTABLISHMENT _____
CASE _____

FACILITY INFORMATION
(SEWAGE PROGRAM)

1 2 3
C A-1 Change Delete F ALL CARDS THIS SIDE

4 5 6
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ID CODE 4-13

COLLECTION SYSTEM

INCHES NORTH												INCHES WEST					
14-16	17-36	Facility Name				37-38	39-43	44-48	49-52	53-54	14-16	17-18	19	20-23	24-27	28-31	
Fac. No.		Owner	Map Number	Act Loc	Mun	Pop Serv.	Year	Fac. No.	Type	Year	Fac. No.		Type	Des Year	Des Pop	Des Mx Flow (Mgd)	
55-56 No. Mun Serv.	57	58-59 Yr Org Op	60-61 Yr Last Imp	62-65 Constr Cost Ytd	66-69 Constr Cost Prior Yrs	70-71 Vlo Last Year	72-73	74-78 Compliances Fac Op	Pmt	79-80 O.S.							

COLLECTION SYSTEM

INCHES NORTH												INCHES WEST					
14-16	17-36	Facility Name				37-38	39-43	44-48	49-52	53-54	14-16	17-18	19	20-23	24-27	28-31	
Fac. No.		Owner	Map Number	Act Loc	Mun	Pop Serv.	Year	Fac. No.	Type	Year	Fac. No.		Type	Des Year	Des Pop	Des Mx Flow (Mgd)	
55-56 No. Mun Serv.	57	58-59 Yr Org Op	60-61 Yr Last Imp	62-65 Constr Cost Ytd	66-69 Constr Cost Prior Yrs	70-71 Vlo Last Year	72-73	74-78 Compliances Fac Op	Pmt	79-80 O.S.							

INTERCEPTOR

INCHES NORTH												INCHES WEST					
14-16	17-36	Facility Name				37-38	39-43	44-48	49-52	53-54	14-16	17-18	19	20-23	24-26	27-28	29-32
Fac. No.		Owner	Map Number	Act Loc	Mun	Pop Serv.	Year	Fac. No.	Type	Year	Fac. No.		Type	Des Year	Des Pop	Des Mx Flow (Mgd)	Dif In Grd (Ft/100 Ft)
55-56 No. Mun Serv.	57	58-59 Yr Org Op	60-61 Yr Last Imp	62-65 Constr Cost Ytd	66-69 Constr Cost Prior Yrs	70-71 Vlo Last Year	72-73	74-78 Compliances Fac Op	Pmt	79-80 O.S.							

INTERCEPTOR

INCHES NORTH												INCHES WEST					
14-16	17-36	Facility Name				37-38	39-43	44-48	49-52	53-54	14-16	17-18	19	20-23	24-26	27-28	29-32
Fac. No.		Owner	Map Number	Act Loc	Mun	Pop Serv.	Year	Fac. No.	Type	Year	Fac. No.		Type	Des Year	Des Pop	Des Mx Flow (Mgd)	Dif In Grd (Ft/100 Ft)
55-56 No. Mun Serv.	57	58-59 Yr Org Op	60-61 Yr Last Imp	62-65 Constr Cost Ytd	66-69 Constr Cost Prior Yrs	70-71 Vlo Last Year	72-73	74-78 Compliances Fac Op	Pmt	79-80 O.S.							

TREATMENT PLANT

INCHES NORTH												INCHES WEST					
14-16	17-36	Facility Name				37-38	39-43	44-48	49-52	53-54	14-16	17-18	19	20-23	24-26	27-28	29-32
Fac. No.		Owner	Map Number	Act Loc	Mun	Pop Serv.	Year	Fac. No.	Type	Year	Fac. No.		Type	Des Year	Des Pop	Des Mx Flow (Mgd)	Dif In Grd (Ft/100 Ft)
55-56 No. Mun Serv.	57	58-59 Yr Org Op	60-61 Yr Last Imp	62-65 Constr Cost Ytd	66-69 Constr Cost Prior Yrs	70-71 Vlo Last Year	72-73	74-78 Compliances Fac Op	Pmt	79-80 O.S.							

DISCHARGE POINT

INCHES NORTH												INCHES WEST					
14-16	17-36	Facility Name				37-38	39-43	44-48	49-52	53-54	14-16	17-18	19	20-23	21-25	26-29	
Fac. No.		Owner	Map Number	Act Loc	Mun	Pop Serv.	Year	Fac. No.	Type	Year	Fac. No.		Type	Des Year	Des Pop	Des Mx Flow (Mgd)	
55-56 No. Mun Serv.	57	58-59 Yr Org Op	60-61 Yr Last Imp	62-65 Constr Cost Ytd	66-69 Constr Cost Prior Yrs	70-71 Vlo Last Year	72-73 Wks Btwn Insp	74-78 Compliances Fac Op Int Fed Pmt	Pmt	79-80 O.S.	38-41 Des Av Flow (Mgd)	42-45 Des Org Ld (P/D)	46-49 Des S. E. Load (P/D)	R	A	P	

16-39 Length of Outfall (Miles) 40-45 Drainage Area (Sq. Mi.)

can be readily maintained as a complete description of each facility and as a file of compliance and inspection reports.

2. Inspection Reports -- Inspection reports comprise a major portion of the routine input into WAMIS. Three types of inspection reports are submitted by field inspectors in the regional offices: water supply, public beach, and waste discharge. Table 5 shows the type of information collected by the inspectors and submitted for processing by WAMIS headquarters section. Remarks can be recorded on the inspection forms and are maintained in the regional offices' files. Example report forms are shown in Figures 7 through 9.

In addition to coding of field analyses on the inspection report, a "Water or Waste Quality Report" is prepared. This report will be discussed in detail under the section on the Water Quality Module; however, it is an integral part of the facility inspection.

In the event that non-compliance is noted during an inspection, the nature of the violation is recorded directly on the inspection report and submitted to the regional Compliance and Administration Chief for action. If no violation is obvious as a result of the inspection, the inspection report is held in the regional office until sample analysis results are returned from headquarters. If the facility is in compliance, then the inspection report and the analysis results are forwarded through regional WAMIS personnel to the headquarters WAMIS section for processing.

In the event that the sample analyses reveal that the facility is in violation, then the inspection report and analysis report are sent to the regional Compliance and Administration Chief for action. A violation notification is prepared and sent to the facility's responsible official, and the Compliance and Administration Chief then prepares an Enforcement Status report (to be discussed later) and attaches it to the inspection report and analysis report. This package is then sent through regional WAMIS personnel to the headquarters WAMIS section for processing. Responsibility for enforcement resides within the region.

As stated earlier, inspections provide a major data input to WAMIS. Nearly 18,000 inspections are conducted each year.

The Bureau has issued a detailed and excellent section on coding of data in the "Policy and Procedure Manual". With minimal training, Field Staff can be expected to adequately fill out reports with little chance of error.

3. Enforcement Status -- As indicated above, when a violation is noted during inspection, the regional Compliance and Administration Chief, subsequent to violation notification, submits to WAMIS

Table 5. INSPECTION REPORT INPUT

Water Supply

Date and time of inspection

Establishment and case name

Address

Names of:

operator
responsible official
person interviewed

Telephone numbers

Population served

Current demand (maximum and average)

Number of treatment unit processes
(total and in operation)

Violations (including applicable laws
and regulations)

Location of sampling point

Field analyses

pH
color
odor
turbidity
taste
chlorides
fluorides
coliforms

Inspecting agency

(continued)

Table 5 (continued).

Compliance
federal
facility
operation
permit coverage

Operational status

Acknowledgement signatures

Public Beach

Date and time of inspection

Establishment and case names

Address

Beach name

Permittee

Person interviewed

Telephone numbers

Source of drinking water

Type of beach

Number of bathers at time of
inspection

Number of lifeguards on duty

Lifeguard certificates on file and
posting

Electrical certification

Sanitary conditions

(continued)

Table 5 (continued).

Water quality (swimming area and drinking)

sample location
coliforms

Swimming water clarity

Inspection agency

Compliance

facility
operation
permit coverage

Operational status

Acknowledgement signatures

Waste Discharge

Date and time of inspection

Establishment and case names

Address

Names of:

operator
responsible official
person interviewed

Telephone numbers

Population served

Acres under permit and already mined
(Mine Drainage Program only)

Types of treatment processes

Number of treatment units
(total and in operation)

(continued)

Table 5 (continued).

Violations (including applicable laws and regulations)
Location of sampling point
Field analyses
pH
chlorine residual
color
odor
temperature
dissolved oxygen
specific conductivity
Average daily flow
Receiving stream appearance
Inspecting agency
Compliance
federal
interstate
facility
operation
permit coverage
Operational status
Acknowledgement signatures

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

DATE _____

TIME

Figure 7

ESTABLISHMENT	CASE	LOCATION (STREET/STATE ROUTE)			COUNTY	MUNICIPALITY		
OPERATOR NAME	VALID CERTIFICATE POSTED <input type="checkbox"/> YES <input type="checkbox"/> NO		TELEPHONE NO.	POP SERVED		SOURCE OF SUPPLY	NUMBER OF UNITS	
RESPONSIBLE OFFICIAL	ADDRESS	TELEPHONE NO.	CURRENT DEMAND (MGD)			WELLS		
PERSON INTERVIEWED	ADDRESS	TELEPHONE NO.	MAXIMUM	AVERAGE		SPRINGS		
						SURFACE WATER		

TREATMENT PROCESS	UNIT PROCESSES		REMARKS
	TOT	IN OP	
IMPOUNDMENT			
COAGULATION			
SETTLING			
FILTRATION			
DISINFECTION			
FLUORIDATION			
SOFTENING			
IRON REMOVAL			
OTHER			

WATER QUALITY LOCATION OF SAMPLING POINT	W & W QUALITY REPORT NUMBER	pH	COLOR	ODOR	TURB	TASTE	CL ₂ MG/L	F MG/L	COLIFORMS MPN/100 MI	VIOLATIONS
A										
B										
C										
D										
										LAWS, REGULATIONS OR PERMIT NO. & COND.

IDENTIFICATION					FAC NO. 1	FAC NO. 2	FAC NO. 3	FAC NO. 4	DATE OF INSPECTION		INSPECTING AGENCY
1 C	CO	MUN	T	EST	CASE	14-16	14-16	14-16	14-16	17-22	23-25
2 A	4-5	6-8	9	10-11	12-13						
3 X											

PERSON INTERVIEWED (SIGNATURE)

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT**

DATE _____

Figure 8

TIME _____

ESTABLISHMENT	CASE	ADDRESS	COUNTY	MUNICIPALITY		
NAME OF BEACH	PERMITEE	PERSON INTERVIEWED	TELEPHONE	DRINKING WATER QUALITY/LOCATION <input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE		
TYPE OF BEACH <input type="checkbox"/> STREAM SIDE <input type="checkbox"/> IMPOUNDMENT OR LAKE	NUMBER OF BATHERS AT TIME OF INSPECTION	NUMBER OF LIFEGUARDS ON DUTY	ALL LIFEGUARDS' CERTIFICATES ON FILE	PERMIT CERTIFICATE POSTED <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO	ELECTRICAL CERTIFICATION DATE	
NAME	SATISFACTORY	DRINKING WATER QUALITY		VIOLATIONS		SWIMMING WATER CLARITY
GENERAL SANITATION	N/A	YES	NO	LOCATION	COLIFORMS MPN/100 MI	
A MEN'S DRESSING ROOMS						
B MEN'S TOILETS				SWIMMING WATER QUALITY		
C WOMEN'S DRESSING ROOMS				LOCATION	COLIFORMS MPN/100 MI	
D WOMEN'S TOILETS						
E REFUSE DISPOSAL						
F SEWAGE						
G AREA						
						<input type="checkbox"/> CLEAR <input type="checkbox"/> TURBID

REMARKS

୬

ER BWQ-32 REV. 1-73
NOTE: SEE COPY 2
BEFORE SIGNING

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT
WASTE DISCHARGE INSPECTION REPORT**

DATE _____

Figure 9

headquarters, an Enforcement Status form along with the inspection report and analysis report. Table 6 shows the input information contained in this form. The form used for coding the input information is shown in Figure 10.

This input provides a record of an order or violation, and also provides a means for tracking the status of a variety of enforcement actions.

The Enforcement Status form also provides for step-by-step recording of subsequent steps in an enforcement action. Information on subsequent steps may come to the Bureau from a number of sources, for example, participating in legal conferences, receipt of a schedule, inspections, and initiation of a new legal tactic. Any staff member who learns of a new step completes a narrative and identification portions of the form and passes it to the regional WAMIS section for coding and processing.

4. STORET Cards -- The Bureau had used STORET cards (Figure 11) in order to specifically identify Facility locations. River Mile Index has never been used, thus reporting format has been upgraded and replaced by latitude-longitude only as described in the next paragraph.

5. Latitude-Longitude Location Coordinates -- Two methods are used for reporting location coordinates. The first is by latitude-longitude as shown in Figure 12. The second method reports in inches North and inches West using map codes for greater convenience. The input form for the latter method is shown in Figure 13. Both methods are used to add new location coordinates to the system for facility records. The methods are used when large numbers of facilities have no coordinates and relieves the coder and keypuncher from handling separate forms for each record addition.

Output

The Facility Status Module, which has been operational for nearly two years, has extensive output. Table 3 lists the reports which emanate from the system. The following discussion cites the various output reports and indicates the information contained therein.

1. Facility File Listing and Identification Report -- These two reports are identical in content, only the order in which the facilities are arranged is different. Both reports file the information input from the Facility Information form and correspond exactly to the input shown in Table 4. Because over 36,000 facilities are included in the file and are modified by nearly 18,000 inspections per year, both reports store a considerable amount of information.

The printout sequence for the Facility File Listing is according to identification code (a combination of county, municipality, program, establishment, case and facility codes). The Identification Report,

Table 6. ENFORCEMENT STATUS INPUT

Identification

establishment
case
facility
county
municipality

Status changes (e.g., add, change,
delete)

Date of violation or order notice

Permit number

Type of order or notice

Basis of compliance status
(e.g., inspection, report by recipient
of order, schedule submitted, not
submitted, delayed)

Compliance status

Issuing agency

Action responsibility

Latest enforcement action status

Date of latest action

Figure 10

ER-BWQ-25 Rev. 12-72

Coded By:
Date:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

Est:
Case:
Fac:
Co:
Twp:

ENFORCEMENT STATUS

VIOLATIONS

Add, Change, Delete

C

ORDERS/NOTICE

A C D circle

Add, Change, Delete

Circle V

V S

Circle S

ID Code

4 16 ID Code

Date Viol Notice

17 22

Date of Order/Notice

Circle V

23 V D S circle

Ordering Agency, D=DER;
S=Other

Permit No.

24 30

Permit No.

Date Inspect/Report

31 36

--Leave Blank--

Type Viol

37 38

Type Order

Sequential Number

39 40

Sequential Number

Basis Viol Status

41 42

Basis Compl Status

Viol Status

43

Compl Status

Kind Facility

44 45

Issuing Agency

Viol Category

46

-- Leave Blank--

Action By

47

Action By

Latest Action

48 49

Latest Action

Date of Action

50 55

Date of Action

Old Enf Action

56 57

Old Enf.. Action

Date Old Action

58 53

Date Old Action

Priority Code 64

VERBAL REPORT:

Reg. File/Data Proc/C.O. File

Signature:

Date:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Water Quality Management

Figure 11

COMPLETED BY _____

DATE _____

STORET CARDS

ESTABLISHMENT	CASE	FACILITY	PROGRAM
---------------	------	----------	---------

<input type="checkbox"/> R 1	(CIRCLE ONE) <input type="checkbox"/> ADD <input type="checkbox"/> CHANGE <input type="checkbox"/> DELETE 2 2 2	<input type="checkbox"/> P 3	IDENTIFICATION CODE  16	STORET II  31	SEQ  34
---------------------------------	---	---------------------------------	--	---	---

1 — FACILITY
2 — PROJECT
3 — RANDOM SAMPLE

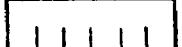
STORET I

MAJ MIN
BASIN BASIN RIVER



35 41

I MILES



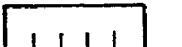
42 47

II INDEX MILES



48 53 54. 59

III INDEX MILES



60 64 65 69

IV INDEX MILES



70 73 74 78

V INDEX MILES



35 38 39 43

VI INDEX MILES



44 47 48 52

VII INDEX MILES



53 56 57 60

VIII INDEX MILES



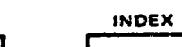
61 64 65 68

IX INDEX MILES



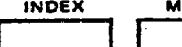
69 72 73 76

X INDEX MILES



35 38 39 42 43 46 47 50

XI INDEX MILES



51 54 55 58

Q
3

R
3

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT
LOCATION COORDINATES
(LATITUDE & LONGITUDE)

Figure 12

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES**

Figure 13

**LOCATION COORDINATES
(INCHES NORTH & INCHES WEST)**

BUREAU OF WATER QUALITY MANAGEMENT

on the other hand; is printed out according to regional office, program type, and county. Figure 14 shows typical Identification Report output. This report is more useful to the regional offices as compared with the Facility File Listing because the Norristown regional office, for example, can identify more quickly key wastewater facilities in Bucks County using the Identification Report format.

2. Addendum Report -- This report permits tracking of the status of the facility. An extract of information from the Identification Report, the "Addendum Report", concisely lists operations status, facility ID and facility name (Figure 15).

The report is useful in providing a ready reference so that the user does not have to consult the extensive Identification Report to extract this information.

3. Enforcement Status Report, Enforcement Status Listing, and Management Action-Enforcement Report -- The content of these three reports is identical and corresponds with the input from the Enforcement Status form shown in Table 6. Whereas the Enforcement Status Report and Listing file indicates the status of all facilities input, the Management Action-Enforcement Report only lists facilities for which enforcement action is pending. The difference between the Enforcement Status Report and Enforcement Status Listing is the frequency of output. The former is issued monthly while the latter is issued quarterly. All are run on the same computer program and are arranged by regional office, program, and county in the printout. Examples of each are shown in Figures 16, 17, and 18.

Compliance and Administrative chiefs in the regional offices use these reports routinely and extensively to keep abreast of compliance status and required action deadlines.

4. Management Action - Non-Enforcement Report -- Despite the similarity in name with the previously discussed report, output from the Management Action - Non-Enforcement Report is quite different. Information is printed out in terms of:

- identification code
- name
- kind of facility
- date of last inspection
- frequency of inspection
- compliances
 - Facility
 - Operation
 - Interstate
 - Federal
 - Permit coverage
 - Operational status

Figure 14

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
IDENTIFICATION REPORT
NORRISTOWN - SEAGRAM
-BUCKS COUNTY-

PAGE 1926
9/30/78

CD-MUN-T-ES-CS-PAC	NAME	OWN	POP	YR	COMPLIANCES	
ALL-FAC-OP-INT-FED-PER-OS						
09-004-7-02-02-101	EFFL PIPE	CO	00 00		1 1 0 0 1 04	
KIND FAC	DISCH PT	ND MUN SERV	02	CONST YTD	0	WKS BET INS 17
MAP NO	00-00-0	YR ORIG-OP	70	CONST PRI	0	VIOL YTD 00
ACT LOC	09-004	YR LST IMP	00	DATE L INSP	06-20-73	VIOL PRIOR 00
TYP DSCH PT	FLOW STR	LENG OUTFAL	,00	DRAINAGE AR	,0	STREAM NAME NESHAMINY CREEK
STORET 2	401006,4-0745441,4					
STORET 1	00-00-000					
BRISTOL BORD						
09-005-7-01-00-000	BRISTOL BORD	MUN		2	BASIN CODE 1030	DATE LA 03-27-72: EJ 0000000000
09-005-7-01-01-000	BRISTOL BORD	MUN	16,000	71	2	CVR 00-000-0-00-000 000000,0-0000000,0
09-005-7-01-01-100	TR PLANT	MUN	16,000	71	2 2 2 0 1 03	
KIND FAC	TRTNT PL	ND MUN SERV	02	CONST YTD	0	WKS BET INS 17
MAP NO	08-24-2	YR ORIG-UP	00	CONST PRI	0	VIOL YTD 01
ACT LOC	09-005	YR LST IMP	00	DATE L INSP	06-20-73	VIOL PRIOR 00
DESIGN YR	0000	DES MAX FL	,0000	DES OGR LD	,0000	TR LEV RD 03
DESIGN POP	22,000	DES AVG FL	,0000	DES SS LUAD	,0000	TR LEV PROV 03
STORET 2	400527,0-0745120,0					TRI PROC REQ 000
STORET 1	00-00-000					TRI PROC PRO 000
09-005-7-01-01-101	FINAL EFFL PIPE	MUN	16,000	71	1 1 1 0 1 04	
KIND FAC	DISCH PT	ND MUN SERV	02	CONST YTD	0	WKS BET INS 17
MAP NO	08-24-2	YR ORIG-OP	00	CONST PRI	0	VIOL YTD 00
ACT LOC	09-005	YR LST IMP	00	DATE L INSP	06-20-73	VIOL PRIOR 00
TYP DSCH PT	FLOW STR	LENG OUTFAL	,00	DRAINAGE AR	,0	STREAM NAME DELAWARE RI
STORET 2	400515,0-0745116,0					
STORET 1	00-00-000					
09-005-7-01-01-300	COLL SYS	100	MUN	16,000	71	1 1 1 0 1 04
KIND FAC	COLL SYS	ND MUN SERV	02	CONST YTD	0	WKS BET INS 00
MAP NO	08-24-2	YR ORIG-OP	00	CONST PRI	0	VIOL YTD 00
ACT LOC	09-005	YR LST IMP	00	DATE L INSP	06-20-73	VIOL PRIOR 00
TYPE SEWER	SEPARATE	DESIGN YEAR	0000	DESIGN POP	23000	DES MAX FL ,0000
STORET 2	400600,0-0745036,0					
STORET 1	00-00-000					
BRISTOL TWP						

Figure 14 (continued)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
IDENTIFICATION REPORT
NORRISTOWN - SEWAGE
-BUCKS COUNTY-

PAGE: 1027
9/30/73

COMMUN-T-ES-CS-FAC	NAME	OWN	POP	YR	COMPLIANCE		
ALL-FAC-OP-INT-FED-PER-US							
09-001-7-01-00-000	BRISTOL TWP	L B C J M A	AUTH	i	BASIN CODE 1030	DATE 09-22-72	EI 0000000000
09-001-7-01-01-000	L B C J M A	AUTH	85,000	71	i	C/R 00-000-0-00-000 000000,040000000,0	
09-001-7-01-01-100	TR PLANT	AUTH	85,000	71	i i 0 0 1 04		
KIND FAC	TRTMT PL	NO MUN SERV	04		CONST YTD 0	WKS BET INS 17	
MAP NO	08-24-3	YR ORIG-OP	52		CONST PRI 000,000	VIOL YTD 01	
ACT LOC	09-001	YR LST IMP	69		DATE L INSP 07-31-73	VIOL PRIOR 00	
DESIGN YR	1975	DES MAX PL	1300000		DES ORG LD 14000,00	TR LEV RQD 05	TR PROC RQD 000
DESIGN POP	100,000	DES AVG PL	1200000		DES SS LOAD 00000	TR LEV PHOV 05	TR PROC PHOV 000
STORET 2	400757.6-0744930.1						
STORET 1	00-00-000						
09-001-7-01-01-101	EFFL PIPE	AUTH	85,000	71	i 1 0 0 1 04		
KIND FAC	DISCH PT	NO MUN SERV	04		CONST YTD 0	WKS BET INS 17	
MAP NO	08-24-3	YR ORIG-OP	52		CONST PRI 0	VIOL YTD 00	
ACT LOC	09-001	YR LST IMP	00		DATE L INSP 09-23-73	VIOL PRIOR 00	
TYP DSCH PT	FLOW STR	LENG DUTFAL	,00		DRAINAGE AR ,0	STREAM NAME DELAWARE RI	
STORET 2	400742.0-0754927.0						
STORET 1	00-00-000						
09-001-7-01-01-300	LEVITTOWN	AUTH	00 00	i	i 0 0 1 04		
KIND FAC	COLL SYS	NO MUN SERV	04		CONST YTD 0	WKS BET INS 00	
MAP NO	08-24-3	YR ORIG-OP	00		CONST PRI 0	VIOL YTD 01	
ACT LOC	09-001	YR LST IMP	00		DATE L INSP 03-10-73	VIOL PRIOR 00	
TYPE SEWER	SEPARATE	DESIGN YEAR	0000		DESIGN PCP 71000	DES MAX PL ,0000	
STORET 2	400905.2-0745029.7						
STORET 1	00-00-000						
09-001-7-01-01-305	BRISTOL TWP	100 MUN	00 00	i	i 0 0 1 04		
KIND FAC	COLL SYS	NO MUN SERV	01		CONST YTD 0	WKS BET INS 00	
MAP NO	08-24-2	YR ORIG-OP	00		CONST PRI 0	VIOL YTD 00	
ACT LOC	09-001	YR LST IMP	73		DATE L INSP 00-00-00	VIOL PRIOR 00	
TYPE SEWER	SEPARATE	DESIGN YEAR	0000		DESIGN PCP 0	DES MAX PL ,0000	
STORET 2	400815.5-0745029.6						
STORET 1	00-00-000						

Figure 15

FAPR03

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
ADDENDUM REPORT

PAGE: 300

COUNTY WESTMORELAND COUNTY

REGION PITTSBURGH

PKDG OTHER SEWAGE

DATE 09/30/73

CD-HUN-T-ES-CS-FAC		ESTABLISHMENT NAME	CASE NAME	FACILITY NAME	OPERATIONS STATUS
ROSTRAVER TWP.		(CONTINUED)			
	101			6" CAST IRON	04=SATISFACTORY OPERATION
SALEM TWP.	65=952-B-01	CONSOLIDATED GAS SUP	COMPANY-HOUSING-STP		
	-01		SEPTIC TANK SAND FILTR	6" VCP OUTFALL	04=SATISFACTORY OPERATION
	100			6" VCP OUTFALL	04=SATISFACTORY OPERATION
	101		COMPRESSOR SIGHT STP		
	100		SEPTIC TANK SAND FILTR	6" VCP OUTFALL	04=SATISFACTORY OPERATION
	101			6" VCP OUTFALL	04=SATISFACTORY OPERATION
65=952-B-02		PCREES MOBILE PARK	FORGES LAKE PK STP		
	-01		AERATION POLISHING		03=OTHER REASON
	100			DISCHARGE PIPE	03=OTHER REASON
	101				
65=952-B-03		TEXTRON INC	TEXTRON INC SEWAGE S		
	-01		EXTENDED AERATION		04=SATISFACTORY OPERATION
	100			DISCHARGE PIPE	04=SATISFACTORY OPERATION
	101				
65=952-B-04		GRNSBG SALCH SCH DIS	METZGAR ELEM SCH STP		
	-01		EXTENDED AERATION		04=SATISFACTORY OPERATION
	100			DISCHARGE PIPE	04=SATISFACTORY OPERATION
	101				
65=952-B-05		LAMPLIGHTER REST. INC	LAMPLIGHTER SE. AGE S		
	-01		EXTENDED AERATION		01=NOT READY FOR OPERATION
	100			OUTFALL PIPE	01=NOT READY FOR OPERATION
	101				
65=952-B-06		TORD DEVELOP CORP	TORD CORP SEWAGE S		
	-01		EXTENDED AERATION		04=SATISFACTORY OPERATION
	100			DISCHARGE PIPE	04=SATISFACTORY OPERATION
	101				
SEWICKLEY TWP.	65=954-B-01	WESTINGHSE ELEC CORP	KALTZ MILL A R D STP		
	-01		1A-HUFF T2&EXTEND AIR		04=SATISFACTORY OPERATION
	100			OUTFALL PIPE TO TADS	04=SATISFACTORY OPERATION
	101				
65=954-B-04		INTERNATL PAPER CO	YUKON PLANT		
	-01		EXTENDED AERATION		04=SATISFACTORY OPERATION
	100			CONCRETE HEADWALL	04=SATISFACTORY OPERATION
	101				
65=954-B-05		YOUGH SCH L DIST	SEA AREA JT MIL H SCH		
	-01		EXTENDED AERATION		04=SATISFACTORY OPERATION
	100			CONCRETE HEADWALL	04=SATISFACTORY OPERATION
	101				
65=954-B-06		SEW PINES MANU XRP	SEWICKLEY PINES STP		
	-01		EXT AERATION-POLISHING PD		04=SATISFACTORY OPERATION
	100			OUTFALL PIPE TO TADS	04=SATISFACTORY OPERATION
	101				
SOUTH HUNTINGDON TWP.					

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PAPR63

Figure 15 (continued)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
ADDITIONAL REPORT

PAGE: 303

COUNTY	REGION	PROG OTHER SEWAGE	DATE: 09/30/78
COMMUN-T=SS=CS=FAC	ESTABLISHMENT NAME		
	CASE NAME		
	FACILITY NAME	OPERATIONS STATUS	
WESTMORELAND COUNTY	REGION PITTSBURGH		
SOUTH HUNTINGDON TWP. 65-955-8-01	(CONTINUED) BROWN JIL CO.		
-01	YUKON STATION	100 EXT AIR & SAND FILTRS 101 DISCHARGE PIPE	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION
ST CLAIR TWP. 65-957-8-01	LAUREL VALLEY SCH TP		
-01	LAUREL VALLEY STP	100 EXTENDED AERATION 101 OUTFALL PIPE	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION
UNITY TWP. 65-959-8-01	MT VIEW ELEM SCHOOL		
-01	MT VIEW ELEM SCH SS	100 EXTEND AER & MICRUS S 101 DISCHARGE PIPE	01-NOT READY FOR OPERATION 04=SATISFACTORY OPERATION
65-959-8-02	ST. JOSEPH HALL		
-01	ST. JOSEPH HALL STP	100 SEPTIC TANK SAND FILTR 101 SEPTIC OUTFALL	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION
65-959-8-04	MT VIEW HOTEL		
-01	MT VIEW HOTEL SS	100 INDUSTRIAL WASTE STA 101 INTRAW. PIPE	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION
65-959-8-06	WEST CO AIRPORT AUTH		
-01	WEST CO AIRPORT AUTH STP	100 EX AER-ADJ SAND FILT 101 DISCHARGE PIPE	01-NOT READY FOR OPERATION 01-NOT READY FOR OPERATION
UPPER BURRELL TWP. 65-960-8-01	ALUMINUM CO OF AMERICA		
-01	MERIDIAN TECHNICAL CTR	100 EXTENDED AERATION 101 DISCHARGE PIPE	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION
65-960-8-02	PENN STATE UNIVERSITY		
-01	NEW HARRISBURG CAMPUS	100 EXTENDED AERATION 101 DISCHARGE PIPE	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION
WASHINGTON TWP. 65-961-8-01	WEST PENN POWER CO		
-01	VALDERS SHIFT DIST HQ	100 SEPTIC TANK SAND FIL 101 SEPTIC PIPE	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION
65-961-8-02	WASH TWP SCH DISTRICT		
-01	N WASHINGTON ELEM SCH	100 EXTENDED AERATION 101 DISCHARGE PIPE	04=SATISFACTORY OPERATION 04=SATISFACTORY OPERATION

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Figure 16

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES ENFORCEMENT STATUS REPORT							PAGE 650 REPORT DATE 2/4/74 PREV RPT DTE 12/31/73
COMMUNITIES-FAC	ESTABLISHMENT	CASE	FACILITY	COMPLIANCES			
							FAC-OP-INT-FED-PER-OS
+BELLFONTE BORO							
14-802-7-01-01-100	BELLFONTE MSA EST	BELLFONTE MSA CAS	B CONT STAB	1	1	0	1 04
DEPARTMNT ORDER:	PRIORITY: *** 4 ***						LAST-INSPECT 11-16-73
DATE NOTICE:	10-12-73	TYPE ORD/VN: TERTIARY	BASIS STATUS: NO SCD	ISS. AGENCY: CENT JFF			0-0-0
PERMIT NO#	2665009	SEQUENCE #: 01	VN/CPL STATE: VN UNSAT	OPERATION	ACTION BY:	REG OFFICE	
STATUS:							
10-12-73 RESPONSE PERIOD	10-25-73 HEAR REQUESTED						
14-802-7-01-01-100	BELLFONTE MSA EST	BELLFONTE MSA CAS	B CONT STAB	1	1	0	1 04
VIOLATION:	PRIORITY: *** 3 ***						LAST-INSPECT 11-16-73
DATE NOTICE:	10-23-73	TYPE ORD/VN: DVN LAW	BASIS STATUS: INSPECTION VIOL	FACLTY: TRTMT PL	INSP/REPT:	09-14-73	
PERMIT NO#	0000000	SEQUENCE #: 01	VN/CPL STATE: VN UNSAT	VN-CATEGORY:	OPERATION	ACTION BY:	REC OFFICE
STATUS:							
10-23-73 VN NOTICE GIVEN							
14-802-7-01-01-101	BELLFONTE MSA EST	BELLFONTE MSA CAS	TREATED EFF	100	1	3	0 0 1 05
VIOLATION:	PRIORITY: *** 4 ***						LAST-INSPECT 11-16-73
DATE NOTICE:	05-16-72	TYPE ORD/VN: DVN LAW	BASIS STATUS: INSPECTION VIOL	FACLTY: TRTMT PL	INSP/REPT:	03-15-72	
PERMIT NO#	2665009	SEQUENCE #: 01	VN/CPL STATE: VN UNSAT	VN-CATEGORY:	OPERATION	ACTION BY:	REC OFFICE
STATUS:							
04-10-72 VN NOTICE GIVEN							
+BENJER TWP.							
14-904-7-01-01-100	UNIV AREA JT.AU EST	UNIV AREA JT.AU CAS	TERT TREATMENT	1	1	0	1 04
DEPARTMNT ORDER:	PRIORITY: *** 4 ***						LAST-INSPECT 09-13-73
DATE NOTICE:	10-25-68	TYPE ORD/VN: TERTIARY	BASIS STATUS: HEARING	ISS. AGENCY: SWB			0-0-0
PERMIT NO#	2675003	SEQUENCE #: 01	VN/CPL STATE: VN SAT PRG	OPERATION	ACTION BY:	ATTY HBG C	
STATUS:							
11-12-68 HEAR REQUESTED	05-11-71 HEAR DENIED/WITHDRAW	09-15-71 ADJ WON		07-06-73 REF ATTY FOR APP ACT			
+FERGUSON TWP.							
14-910-7-01-01-100	FERGUSON TWP AT EST	FERGUSON TWP AT CAS	EXT AERATION	1	3	0	0 1 05
DEPARTMNT ORDER:	PRIORITY: *** 4 ***						LAST-INSPECT 12-20-73
DATE NOTICE:	10-25-68	TYPE ORD/VN: TERTIARY	BASIS STATUS: NO SCD	ISS. AGENCY: NOT ISSU			0-0-0
PERMIT NO#	0026455	SEQUENCE #: 01	VN/CPL STATE: VN UNSAT	OPERATION	ACTION BY:	REG OFFICE	
STATUS:							
10-25-68 SCD RETURNED	05-24-73 ENF CONF	06-15-73 SCD SUBMITTED					

Figure 16 (continued)

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES ENFORCEMENT STATUS REPORT PITTSBURGH - INDUSTRIAL WASTE -BEAVER COUNTY-										PAGE 761 REPORT DATE 2/4/74 PREV RPT DTE 12/31/73
CO-MUN-T-ES-CS-FAC	ESTABLISHMENT	CASE	FACILITY	COMPLIANCES						
				FAC-OP-INT-FEO-PFR-DS						
*FREEDOM BORO										
04-809-5-01-010	ASHLAND OILREFIN CO	VALVOLINE OIL CO	OIL REFINERY	1	1	1	1	4	04	
VIOLATION	PRIORITY: *** 3 ***									
DATE NOTICE	03-13-72	TYPE ORO/VNI DVN LAW	BASIS STATUS:SCO SUBMTO VIOL FACLTY: PR/SV UN	LAST-INSPECT	01-18-73					
PERMIT NO.	0000000	SEQUENCE #1 01	VN/CPL STATI VN SAT PRG VN-CATEGORY:1 FACILITY	INSP/REPTI	00-00-00					
STATUS:	06-08-72 REF ATTY FOR APP ACT	01-03-73 STIP AGREED TO	ACTION BYI REG OFFICE							
04-809-5-01-013	ASHLAND OILREFIN CO	VALVOLINE OIL CO	SEEPS FROM RIVER BAN	3	0	3	0	3	03	
VIOLATION	PRIORITY: *** 3 ***									
DATE NOTICE	01-18-73	TYPE ODO/VNL DVN LAW	BASIS STATUS:INSPECTION VIOL FACLTY: DISCH PT	LAST-INSPECT	01-18-73					
PERMIT NO.	0000000	SEQUENCE #1 01	VN/CPL STATI VN UNSAT VN-CATEGORY:1 FACILITY	INSP/REPTI	01-18-73					
STATUS:	09-26-73 REF ATTY FOR APP ACT		ACTION BYI REG OFFICE							
*GREENE TWP.										
04-933-5-02-011	PEGGS RUN COAL EST	PEGGS RUN COAL CAS	SETTLING POND 3	1	3	3	0	1	03	
VIOLATION	PRIORITY: *** 3 ***									
DATE NOTICE	02-25-71	TYPE ORO/VNI DVN LAW	BASIS STATUS:HEARING VIOL FACLTY: TRTHY PL	LAST-INSPECT	01-10-72					
PERMIT NO.	0470209	SEQUENCE #1 01	VN/CPL STATI VN UNSAT VN-CATEGORY:1 OPERATION	INSP/REPTI	02-10-71					
STATUS:	03-08-71 SUMMARY WON	11-01-71 STIP BEING NEGOTIATED	ACTION BYI ATTY PITT							
04-934-5-01-012	THOMAS WRIGHT	THOMAS WRIGHT	WRIGHT FARM	3	0	3	0	3	03	
VIOLETION	PRIORITY: *** 1 ***									
DATE NOTICE	06-13-73	TYPE ODO/VNI DVN LAW	BASIS STATUS:INSPECTION VIOL FACLTY: DISCH PT	LAST-INSPECT	06-13-73					
PERMIT NO.	0000000	SEQUENCE #1 01	VN/CPL STATI VN UNSAT VN-CATEGORY:1 FACILITY	INSP/REPTI	06-11-73					
STATUS:	06-13-73 REF ATTY FOR APP ACT		ACTION BYI REG OFFICE							
*KOPPEL BORO										
04-940-5-01-031	BABCOCK WILCOX EST	BABCOCK WILCOX. CAS	24# CONCRETE	3	0	3	0	3	03	
VIOLETION	PRIORITY: *** 3 ***									
DATE NOTICE	03-15-72	TYPE ORO/VNI DVN LAW	BASIS STATUS:SCO SUBMTO VIOL FACLTY: DISCH PT	LAST-INSPECT	04-26-73					
PERMIT NO.	0000000	SEQUENCE #1 01	VN/CPL STATI VN SAT PRG VN-CATEGORY:1 FACILITY	INSP/REPTI	02-04-72					
STATUS:	03-15-72 VN NOTICE GIVEN	03-20-72 COMPL LTR SUBMITTED	ACTION BYI ATTY PITT							
12-19-72 RETURNED TO BUREAU			08-21-72 REF ATTY FOR APP ACT	12-16-72 STIP AGREED TO						

Figure 17

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES ENFORCEMENT STATUS LISTING							PAGE 1034	REPORT DATE 9/20/73
WILLIAMSPORT - LYKOMING COUNTY		SEWAGE						
COMMUNITY-ES-CS-PAC	ESTABLISHMENT	CASE	FACILITY	COMPLIANCE				
				PAC=OP=INT=FED=PER=OS				
MONTGOMERY BORO								
41-933-7-01-01-100	MONTGRY WGS AUT EST	MONTGRY WGS AUT GAS	SETTLING & CHEMICAL	1	1	0	0	1 04
VIOLENCE	PRIORITY: *** 4 ***							
DATE NOTICE: 10-06-72	TYPE ORD/VN1 DVN LAM	BASIS STATUS: INSPECTION	VIOL FACTY: TRTMT PL	INSP/REPTI	10-06-72			
PERMIT NO: 0000000	SEQUENCE #1 01	VN/CPL STAT: RECT ACHVD	VN=CATEGORY: OPERATION	ACTION BYI	REG OFFICE			
STATUS:								
11-09-72	REF ATTY FOR APP ACT	11-10-72 RETURNED TO BUREAU	08-09-73 COMPLIANCE ACHIEVED					
41-933-7-01-01-101	MONTGRY WGS AUT EST	MONTGRY WGS AUT GAS	TREATED EFFLUENT 100	1	1	0	0	1 04
VIOLENCE	PRICKITY: *** 4 ***							
DATE NOTICE: 10-06-72	TYPE ORD/VN1 DVN LAM	BASIS STATUS: INSPECTION	VIOL FACTY: DISCH PT	INSP/REPTI	10-06-72			
PERMIT NO: 0000000	SEQUENCE #1 01	VN/CPL STAT: RECT ACHVD	VN=CATEGORY: OPERATION	ACTION BYI	REG OFFICE			
STATUS:								
11-09-72	REF ATTY FOR APP ACT	11-10-72 RETURNED TO BUREAU	08-09-73 COMPLIANCE ACHIEVED					
41-933-7-01-01-200	MONTGRY WGS AUT EST	MONTGRY WGS AUT GAS	MONTGOMERY PHT	100	1	1	0	1 04
VIOLENCE	PRIORITY: *** 4 ***							
DATE NOTICE: 10-06-72	TYPE ORD/VN1 DVN LAM	BASIS STATUS: INSPECTION	VIOL FACTY: CONV SYS	INSP/REPTI	10-06-72			
PERMIT NO: 0000000	SEQUENCE #1 01	VN/CPL STAT: RECT ACHVD	VN=CATEGORY: OPERATION	ACTION BYI	REG OFFICE			
STATUS:								
11-09-72	REF ATTY FOR APP ACT	08-09-73 COMPLIANCE ACHIEVED						
MUNCY BORO								
41-834-7-01-01-100	MUNCY MSA EST	MUNCY MSA GAS	IMMOB TANKS	1	1	0	0	1 04
DEPARTMENT ORDER:	PRIORITY: *** ***							
DATE NOTICE: 08-18-69	TYPE ORD/VN1 SECONDARY	BASIS STATUS: NO SCD	ISS, AGENCY: SWB	OPERATION	0-0-0			
PERMIT NO: 0008190	SEQUENCE #1 01	VN/CPL STAT: VN SAT PRG	VN=CATEGORY: OPERATION	ACTION BYI	REG OFFICE			
STATUS:								
02-07-72	SCD SUBMITTED							
WILLIAMSPORT								
41-001-7-01-01-100	WMSPT S AV CENT EST	WMSPT S AV CENT GAS	ABRITION SETTLING	1	1	0	0	1 04
DEPARTMENT ORDER:	PRIORITY: *** ***							
DATE NOTICE: 06-20-68	TYPE ORD/VN1 COMBINED	BASIS STATUS: NO SCD	ISS, AGENCY: SWB	OPERATION	0-0-0			
PERMIT NO: 0007144	SEQUENCE #1 01	VN/CPL STAT: VN UNSAT	VN=CATEGORY: OPERATION	ACTION BYI	ATTY HSG C			
STATUS:								
04-08-72	PRELIM INJ INITIATED	09-23-73 ORDER SUPERCEDED						

Figure 17 (continued)

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES ENFORCEMENT STATUS LISTING						PAGE: 1340	REPORT DATE 9/30/73
PITTSBURGH SEWAGE FAYETTE COUNTY							
CO-MUN-T-ES-CS-PAC	ESTABLISHMENT	CASE	FACILITY	COMPLIANCE:			
				PAC=DP=INT=FED=PER=DS			
*GERMAN TWP. *GERMAN TWP.	GERMAN TWP.	GERMAN TWP SS	NUXEROUS RAW DISCHAR	1	0	0	3 03
26-918-7-01-01-101 DEPARTMENT ORDER: PRIORITY: *** 3 *** DATE NOTICE: 04-27-72 PERMIT NO: 0000000 STATUS: 05-12-72 HEAR REQUESTED			BASIS STATUS:SCD SUBMTD ISS, AGENCY: CENT OFF VN/CPL STAT: VN SAT PRG	OPERATION	ACTION: BYI	ATTY: HBO-C	0 0 0
12-08-72 SCD SUBMITTED							
*JEFFERSON T.P. 26-920-7-01-01-101 DEPARTMENT ORDER: PRIORITY: *** 3 *** DATE NOTICE: 04-27-72 PERMIT NO: 0000000 STATUS: 05-12-72 HEAR REQUESTED	JEFFERSON TWP.	JEFFERSON TWP SS	MULTIPLE RAW DISCHAR	1	0	0	3 03
			BASIS STATUS:SCD SUBMTD ISS, AGENCY: CENT OFF VN/CPL STAT: VN SAT PRG	OPERATION	ACTION: BYI	REG OFFICE	0 0 0
12-28-72 SETTLEMENT/CONSENT 01-04-73 SCD SUBMITTED							
26-920-7-01-01-101 DEPARTMENT ORDER: PRIORITY: *** 3 *** DATE NOTICE: 04-27-72 PERMIT NO: 0000000 STATUS: 11-13-72 RESPONSE PERIOD	JEFFERSON TWP.	JEFFERSON TWP SS.	MULTIPLE RAW DISCHAR	1	0	0	3 03
			BASIS STATUS:SCD SUBMTD ISS, AGENCY: CENT OFF VN/CPL STAT: VN SAT PRG	OPERATION	ACTION: BYI	REG OFFICE	0 0 0
12-28-72 SETTLEMENT/CONSENT 01-04-73 SCD SUBMITTED							
*LUZERNE TWP. 26-922-7-01-01-101 DEPARTMENT ORDER: PRIORITY: *** 3 *** DATE NOTICE: 04-27-72 PERMIT NO: 0008145 STATUS: 05-12-72 HEAR REQUESTED	LUZERNE TWP SUPERVOR	LUZERNE TWP SUPERVOR	OUTFALL PIPES TO R	2	0	2	2 03
			BASIS STATUS:SCD SUBMTD ISS, AGENCY: CENT OFF VN/CPL STAT: VN SAT PRG	OPERATION	ACTION: BYI	REG OFFICE	0 0 0
08-29-72 ADJ. WON 12-08-72 SCD SUBMITTED							
26-922-7-01-01-101 DEPARTMENT ORDER: PRIORITY: *** 4 *** DATE NOTICE: 04-27-72 PERMIT NO: 0008146 STATUS: 04-27-72 SCD SUBMITTED	LUZERNE TWP SUPERVOR.	LUZERNE TWP SUPERVOR	OUTFALL PIPES TO R	2	0	2	2 03
			BASIS STATUS:SCD SUBMTD ISS, AGENCY: CENT OFF VN/CPL STAT: VN SAT PRG	OPERATION	ACTION: BYI	REG OFFICE	0 0 0

Figure 18

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT ACTION ENFORCEMENT KINGSTON - INDUSTRIAL WASTE -TIoga COUNTY-							PAGE 240 REPORT DATE 7/20/73 PREV RPT DTE
CO-MUN-T-ES-CS-FAC	ESTABLISHMENT	CASE	FACILITY	COMPLIANCES			
				FAC-DP-INT-FED-PER-CS			
*DELMAR TWP.							
*DELMAR TWP.							
59-911-5-02-C1-010	DRESSER MFG DIV EST	DRESSER MFG DIV CAS	VALVES-PIPE FITTINGS	3	3	1	1 0 0 04
VISITATION	PRIORITY: *** ***						NO ACTIVITY 6 MONTHS
DATE NOTICE: 04-26-72	TYPE ORD/VNL DVN LWN	BASIS STATUS: INSPECTION	VIOL. FACILITY PR/SV UN		INSP/REPTI		03-14-72
PERMIT NO: 0000000	SEQUENCE #: 01	VN/CPL STATE: VN UNSAT	VN=CATEGORY: OPERATION		ACTION: BYI		REG OFFICE
STATUS:							
04-26-72 RESPONSE PERIOD	03-25-72 REF FOR CIV PEN HEAR						
*LIBERTY TWP.							
59-924-5-01-01-011	E SMITHFIELD FM EST	E SMITHFIELD FM CAS	AERAT SETTLING TANKS	1	3	1	0 1 04
VISITATION	PRIORITY: *** 1 ***						NO ACTIVITY 6 MONTHS
DATE NOTICE: 12-07-72	TYPE ORD/VNL DVN LWN	BASIS STATUS: RETN LETTER	VIOL. FACILITY TRNT PL		INSP/REPTI		12-07-72
PERMIT NO: 0025211	SEQUENCE #: 01	VN/CPL STATE: VN SAT PROG	VN=CATEGORY: OPERATION		ACTION: BYI		ATTY HSO C
STATUS:							
12-20-72 STIP BEING NEGOTIATED							
*MELLISABRO BORO							
59-802-5-01-01-011	CORNING GLASS EST	CORNING GLASS CAS	NEUTRALIZATION-SETTL	1	1	1	0 1 04
DEPARTMENT ORDER:	PRIORITY: *** 1 ***						NO ACTIVITY 6 MONTHS
DATE NOTICE: 09-01-71	TYPE URD/VNL PIPP	BASIS STATUS: RETN LETTER	ISS. AGENCY: GENT OFF				0- 0- 0
PERMIT NO: 0026311	SEQUENCE #: 01	VN/CPL STATE: VN SAT PROG	OPERATION		ACTION: BYI		REG OFFICE
STATUS:							
02-01-72 ENF CONF	10-17-72 SCD SUBMITTED	03-15-73 STIP AGREED TO					
59-802-5-01-01-011							
CORNING GLASS EST	CORNING GLASS CAS	NEUTRALIZATION-SETTL	1	1	1	0 1 04	
DEPARTMENT ORDER:	PRIORITY: *** 1 ***						NO ACTIVITY 6 MONTHS
DATE NOTICE: 09-01-71	TYPE URD/VNL PIPP	BASIS STATUS: RETN LETTER	ISS. AGENCY: GENT OFF				0- 0- 0
PERMIT NO: 0001363	SEQUENCE #: 02	VN/CPL STATE: VN SAT PROG	OPERATION		ACTION: BYI		REG OFFICE
STATUS:							
02-01-72 ENF CONF	10-17-72 SCD SUBMITTED	03-15-73 STIP AGREED TO					
59-802-5-01-01-011							
CORNING GLASS EST	CORNING GLASS CAS	NEUTRALIZATION-SETTL	1	1	1	0 1 04	
DEPARTMENT ORDER:	PRIORITY: *** 1 ***						NO ACTIVITY 6 MONTHS
DATE NOTICE: 09-01-71	TYPE ORD/VNL PIPP	BASIS STATUS: RETN LETTER	ISS. AGENCY: GENT OFF				0- 0- 0
PERMIT NO: 2691002	SEQUENCE #: 03	VN/CPL STATE: VN SAT PROG	OPERATION		ACTION: BYI		REG OFFICE
STATUS:							
02-01-72 ENF CONF	10-17-72 SCD SUBMITTED	03-15-73 STIP AGREED TO					

Figure 18 (continued)

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT ACTION ENFORCEMENT						PAGE 375	REPORT DATE 9/30/73	PREV RPT DTE
LEWISTOWN - INDUSTRIAL WASTE -CUMBERLAND COUNTY-								
CD-MUN-T-ES-CS-FAC	ESTABLISHMENT	CASE	FACILITY	COMPLIANCE:				
				FAC-MOP-INT-FED-PERIODS				
54	•EAST PENNSBORO TWP.							
21-709-5-01-32-013	PENN CENTRAL RR EST	PENN CENTRAL R.R.	68 ARCH PUMP	1	3	0	0	1 03
VIOLATION:	PRIORITY: *** 3 ***							NO ACTIVITY 6 MONTHS
DATE NOTICE: 03-14-69	TYPE: ORD/VNL DVN LAW	BASIS STATUS: INSPECTION	VIOL. FACILITY: DISCH PT	INSP/REPTI	03-13-69			
PERMIT NO: 0000000	SEQUENCE #: 01	VN/CPL STATUS: VN UNSAT	VN-CATEGORY: PERMIT	ACTION BY:	ATTY HBG C			
STATUS:								
03-14-69 VN NOTICE GIVEN	03-17-69 SCO SUBMITTED	03-24-69 VN NOTICE GIVEN	11-12-69 ENF CONF					
11-21-69 VN NOTICE GIVEN	12-01-69 COMPL LTR SUBMITTED	02-10-70 VN NOTICE GIVEN	02-19-70 COMPL LTR SUBMITTED					
03-09-70 ENF CONF	03-18-70 REF ATTY FOR APP ACT	07-16-70 SCO SUBMITTED	08-21-70 SCO SUBMITTED					
10-31-70 SCO SUBMITTED	11-24-70 STIP AGREED TO	11-13-71 ENF CONF	01-14-72 SCO SUBMITTED					
06-11-72 ENF CONF	07-21-72 ENF CONF							
21-709-5-01-32-014	PENN CENTRAL RR EST	PENN CENTRAL R.R.	OIL SLUDGE LAGOONS	2	1	0	0	1 04
VIOLATION:	PRIORITY: *** 3 ***							NO ACTIVITY 6 MONTHS
DATE NOTICE: 07-16-67	TYPE: ORD/VNL DVN LAW	BASIS STATUS: INSPECTION	VIOL. FACILITY: TRTMT PL	INSP/REPTI	08-30-67			
PERMIT NO: 0000000	SEQUENCE #: 01	VN/CPL STATUS: VN UNSAT	VN-CATEGORY: OPERATION	ACTION BY:	REG OFFICE			
STATUS:								
07-19-67 VN NOTICE GIVEN								
21-709-5-01-02-014	PENN CENTRAL RR EST	PENN CENTRAL R.R.	OIL SLUDGE LAGOONS	2	1	0	0	1 04
VIOLATION:	PRIORITY: *** 3 ***							NO ACTIVITY 6 MONTHS
DATE NOTICE: 10-23-70	TYPE: ORD/VNL DVN LAW	BASIS STATUS: INSPECTION	VIOL. FACILITY: STUR UNT	INSP/REPTI	09-30-70			
PERMIT NO: 0000000	SEQUENCE #: 01	VN/CPL STATUS: VN UNSAT	VN-CATEGORY: PERMIT	ACTION BY:	REG OFFICE			
STATUS:								
10-23-70 VN NOTICE GIVEN	11-25-70 COMPL LTR SUBMITTED	01-12-71 ENF CONF	02-10-71 COMPL LTR SUBMITTED					
04-14-71 VN NOTICE GIVEN	08-02-71 COMPL LTR SUBMITTED	07-20-72 ENF CONF						
21-709-5-02-02-010	E PENNS T LNDFL EST	E PENNS TWP LNDFL	LANDFILL	0	0	0	0	0 04
VIOLATION:	PRIORITY: *** 4 **							NO ACTIVITY 6 MONTHS
DATE NOTICE: 05-03-71	TYPE: ORD/VNL DVN LAW	BASIS STATUS: RETN LETTR	VIOL. FACILITY: PR/SV UN	INSP/REPTI	04-01-71			
PERMIT NO: 0000000	SEQUENCE #: 01	VN/CPL STATUS: VN SAT PRO	VN-CATEGORY: OPERATION	ACTION BY:	REG OFFICE			
STATUS:								
05-03-71 VN NOTICE GIVEN	05-24-71 COMPL LTR SUBMITTED							

In addition, there is a message portion of the report. Because no enforcement action is involved, a typical message might be "not inspected in 12 months". Figure 19 shows a typical report printout. The value of this report is highly dependent upon quick response and turn-around times. Because the workload on higher priority items currently does not permit the rapid response required, the Bureau has temporarily discontinued issuing this report.

5. Enforcement Activity Report, Enforcement Status Totals, Enforcements in DSE Over One Year -- These three enforcement-related reports are less used than those previously discussed.

The Enforcement Activity Report cites orders and violations during the report period (monthly) which have been added, referred to the Deputy Secretary for Enforcement (DSE), returned to the Bureau of Water Quality Management, and achieved compliance. Additionally, the report indicates workflow during the report period and action categories for orders and violations. Figure 20 shows example output.

Violations and orders are collated according to regional office and are listed by priority according to satisfactory progress, unsatisfactory progress, and repeat violations.

Enforcement Status Totals (shown in Figure 21) give information on violations and orders outstanding as of the report date with: totals by regions, those being processed by office, enforcement action percentages by program, summary percentages by program, age of actions in the hands of the Deputy Secretary for Environment, and a history of workflow by report period.

The report on Enforcements in DSE (Deputy Secretary for Enforcement) Over One Year is a record of orders or violations referred to the office of the Deputy Secretary for Enforcement over one year in age. This record is reported in terms of facility identification code, type of plant, and compliance status. Example output is shown in Figure 22.

6. Input Validation Error Listing and STORET Error Listing -- Both of these output reports are used when errors are identified by validation routines in processing. The errors are collated and compiled according to regional office where they are sent for corrective action. In the case of STORET card errors, the report notes the record on file and cites the reason for data rejection. Example output is shown in Figures 23 and 24, respectively.

7. Update Master Activity List and Cross-Reference Update -- Although both of these reports are updates, they are very different. The Update Master Activity List (Figure 25) compiles additions, changes, and deletions for the following categories of information: establishments, cases, facilities, orders, violations, or inspections. On the

Figure 19

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT ACTION NON-ENFORCEMENT										PAGE 822 9/30/73
MEADVILLE - OTHER SEWAGE - WARREN COUNTY										
CO-MUN-T-ES-CS-FAC	NAME	KIND FAC	LAST INSP	FREQ INSP	COMPLIANCES:					MESSAGE
					FAC-OP-INT-FED-PER-OS					
*BROKENSTRAN TWP.										
62-913-8-01-01-100	SEPTIC-FILTR-CHLDR	TRTMNT PL	1- 9-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-913-8-01-01-101	CUTFALL	DISCH PT	1- 9-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-913-8-02-01-100	EXTENDED AERATION	TRTMNT PL	1-11-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
*CLARENCEON BORG										
62-905-8-01-01-100	EXT. AERATN-SETTLING	TRTMNT PL	2-14-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-905-8-01-01-101	CUTFALL	DISCH PT	2-14-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
*CO. CLAUSSE TWP.										
62-907-6-01-01-100	BIOFILTER	TRTMNT PL	11-21-72	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-907-6-01-01-101	CUT FALL	DISCH PT	11-21-72	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-907-6-02-01-100	EXTENDED AERATION	TRTMNT PL	1- 5-73	26 WKS	1	1	1	1	1	04. INSPECTION DUE OVER 4 WK
62-907-6-02-01-101	CUTFALL SEWER	DISCH PT	1- 6-73	26 WKS	1	1	1	1	1	04. INSPECTION DUE OVER 4 WK
*ELK TWP.										
62-912-8-01-01-101	CUTFALL SEWER	DISCH PT	0- 0-00	26 WKS	1	0	0	0	1	04. NOT INSPECTED 12 MONTHS
*FARRINGTON TWP.										
62-913-8-01-01-100	EXTENDED AERATION	TRTMNT PL	3-23-72	26 WKS	1	1	0	0	1	04. NOT INSPECTED 12 MONTHS
62-913-8-01-01-101	CUT FALL	DISCH PT	3-23-72	26 WKS	1	1	0	0	1	04. NOT INSPECTED 12 MONTHS
*HCAI TWP.										
62-915-8-01-01-100	SEPTIC SAND FILTER	TRTMNT PL	1- 9-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-915-8-01-01-101	CUT FALL	DISCH PT	1- 9-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-915-8-02-01-100	EXTENDED AERATION	TRTMNT PL	1-12-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-915-8-02-01-101	CUT FALL SEWER	DISCH PT	1-12-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-915-8-03-01-100	SEPTIC-FILTR-CHLDR	TRTMNT PL	2- 7-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-915-8-03-01-101	CUTFALL	DISCH PT	2- 7-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-915-8-03-01-100	SEPTIC-FILTRN-CHLDR	TRTMNT PL	0- 0-00	26 WKS	1	1	1	1	1	04. NOT INSPECTED 12 MONTHS
62-915-8-03-01-101	CUTFALL	DISCH PT	0- 0-00	26 WKS	1	1	1	1	1	04. NOT INSPECTED 12 MONTHS
*HILLSFIELD T.P.										
62-920-8-01-01-100	EXTENDED AERATION	TRTMNT PL	1-12-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-920-8-01-01-101	CUT FALL SEWER	DISCH PT	1-12-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-920-8-02-01-100	EXTENDED AERATION	TRTMNT PL	1-12-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
62-920-8-02-01-101	CUT FALL SEWER	DISCH PT	1-12-73	26 WKS	1	1	0	0	1	04. INSPECTION DUE OVER 4 WK
*PLEASANT T.P.										
62-921-8-01-01-100	EXT AERATION-TERTIRY	TRTMNT PL	1-11-73	26 WKS	1	1	1	1	1	04. INSPECTION DUE OVER 4 WK
62-921-8-01-01-101	CUTFALL	DISCH PT	1-11-73	26 WKS	1	1	1	1	1	04. INSPECTION DUE OVER 4 WK
62-921-8-02-01-101	SUBSURFACE	DISCH PT	2- 8-73	26 WKS	2	2	0	0	2	05. INSPECTION DUE OVER 4 WK
*SUGAR GROVE T.P.										
62-926-8-01-01-100	SEPTIC TANK SAND FIL	TRTMNT PL	0- 0-00	26 WKS	1	1	0	0	1	04. NOT INSPECTED 12 MONTHS

Figure 19 (continued)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
MANAGEMENT ACTION NON ENFORCEMENT
HEADVILLE - UTER SEWAGE
WARREN COUNTY

PAGE 823
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CO-MUN-T-ES-CS-FAC.	NAME	KIND FAC	LAST INSP	FREQ INSP	COMPLIANCE:					MESSAGE	
					PAC=DP=INT=FEU=PER=OS						
#SUGAR GROVE THP											
62-926-B-01-C1-101	OUTFALL	DISCH PT	0-C-00	26 WKS	1	1	0	0	1	01	NOT INSPECTED 12 MONTHS
62-926-U-C2-01-100	EXT AERATION	TRTMT PL	0-C-00	26 WKS	1	1	0	0	1	01	NOT INSPECTED 12 MONTHS
62-926-B-C2-01-101	OUTFALL SEWER	DISCH PT	0-C-00	26 WKS	1	1	0	0	1	01	NOT INSPECTED 12 MONTHS

Figure 20

SRPZ10 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES FACILITY STATUS BUREAU OF WATER QUALITY MANAGEMENT VIOLATIONS ADDED DURING REPORT PERIOD											PAGE 3	RUN DATE 03/18/74	
PROGRAM- SEWAGE											...REPEAT VIOLATORS...		
REG OFF	VIOLATIONS BY PRIORITY.....						TOTAL VIOL	TOTAL SAT	TOTAL UNSAT		ESTS	CASES	FACS
	I	II	III	IV	V	VI	NONE						
NORR	0	0	1	0	0	0	0	1	0	1	1	1	1
KING	0	0	0	0	0	0	0	0	0	0	0	0	0
READ	0	0	0	0	0	0	0	0	0	0	0	0	0
LEWT	0	0	2	0	1	1	0	4	0	4	1	0	0
WMPT	1	0	1	3	1	3	0	9	4	5	0	0	0
PITT	1	0	8	0	0	0	0	9	1	8	2	1	0
MEAD	0	0	1	0	0	1	0	2	1	1	0	0	0
HARR	0	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	2	0	13	3	2	5	0	25	6	19	4	2	1
PROGRAM- OTHER SEWAGE													
NORR	0	0	2	0	1	0	0	3	2	1	1	1	1
KING	0	0	0	2	0	0	0	2	2	0	1	1	1
READ	0	0	1	0	0	0	0	1	0	1	0	0	0
LEWT	0	0	1	0	1	1	0	3	0	3	2	2	1
WMPT	0	0	0	0	0	0	0	0	0	0	0	0	0
PITT	0	0	1	0	1	1	0	3	3	0	2	2	2
MEAD	0	0	2	0	0	0	0	2	0	2	1	1	1
HARR	0	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	0	0	7	2	3	2	0	14	7	7	7	7	6
PROGRAM- STNG FAM SEWAGE													
NOPR	0	0	0	0	0	0	0	0	0	0	0	0	0
KIFC	0	0	0	6	0	0	0	6	6	0	0	0	0
READ	0	0	0	0	0	0	0	0	0	0	0	0	0
LEWT	0	0	0	0	0	0	0	0	0	0	0	0	0
WMPT	0	0	0	0	0	0	0	0	0	0	0	0	0
PITT	0	0	0	0	0	0	0	0	0	0	0	0	0
MEAD	0	0	0	0	0	0	0	0	0	0	0	0	0
HARR	0	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	0	0	0	6	0	0	0	6	6	0	0	0	0
FINAL TOTAL	3	1	42	20	7	19	0	92	44	48	18	16	8

Figure 20 (continued)

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT ACTIVITY REPORT FROM 01/01/74 TO 01/31/74											PAGE 6	RUN DATE 03/18/74
FACILITY STATUS											ORDERS ADDED DURING REPORT PERIOD	
PROGRAM- SEWAGE												
PER OFF ORDERS BY PRIORITY												
	I	II	III	IV	V	VI	NONE	TOTAL ORDERS	TOTAL SAT	TOTAL UNSAT	TOTAL REVIEW	...REPEAT VIOLATORS... ESTS CASES FACS
NORR	0	0	0	0	0	0	0	0	0	0	0	0
KING	0	0	0	2	0	0	0	2	2	0	0	1
READ	0	0	0	2	0	0	0	2	0	2	0	2
LEWT	0	0	0	0	0	0	0	0	0	0	0	0
WMPT	20	0	0	0	0	0	0	20	20	0	0	1
PITT	0	0	0	0	0	0	0	0	0	0	0	0
HEAD	0	0	0	1	0	0	0	1	0	1	0	0
HARK	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	20	0	1	4	0	0	0	25	22	3	0	4
PROGRAM- OTHER SEWAGE												
NORR	0	0	1	0	1	0	0	2	1	1	0	1
KING	0	0	0	0	0	0	0	0	0	0	0	0
READ	0	0	0	0	0	0	0	0	0	0	0	0
LEWT	0	0	0	0	0	0	0	0	0	0	0	0
WMPT	0	0	0	0	0	0	0	0	0	0	0	0
PITT	0	0	0	0	0	0	0	0	0	0	0	0
HEAD	0	0	0	0	0	0	0	0	0	0	0	0
HARK	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	0	0	1	0	1	0	0	2	1	1	0	1
PROGRAM- SING FAM SEWAGE												
NORR	0	0	0	0	0	0	0	0	0	0	0	0
KING	0	0	0	0	0	0	0	0	0	0	0	0
READ	0	0	0	0	0	0	0	0	0	0	0	0
LEWT	0	0	0	0	0	0	0	0	0	0	0	0
WMPT	0	0	0	0	0	0	0	0	0	0	0	0
PITT	0	0	0	0	0	0	0	0	0	0	0	0
HEAD	0	0	0	0	0	0	0	0	0	0	0	0
HARK	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
FINAL TOTAL	21	0	3	4	2	1	0	31	23	7	1	5

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Figure 20 (continued)

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT ACTIVITY REPORT FROM 01/01/74 TO 01/31/74											PAGE	7		
											RUN DATE	03/18/74		
SUMMARY- VIOL AUDIED DURING RPT PERIOD - ALL PROGRAMS														
REG OFF	VIOLATIONS BY PRIORITY.....						TOTAL	TOTAL	TOTAL	...REPEAT VIOLATORS...				
	I	II	III	IV	V	VI	NONE	VIOL	SAT	UNSAT	ESTS	CASES	FACS	
NORR	0	0	5	4	2	2	0	13	6	7	2	2	2	
KING	0	0	2	10	1	5	0	18	18	0	4	4	2	
READ	0	0	1	0	0	0	0	1	0	1	0	0	0	
LEWT	1	0	4	0	2	2	0	9	0	9	5	4	1	
RMPT	1	0	7	6	1	5	0	20	9	11	1	1	0	
PITT	1	1	14	0	1	1	0	18	7	11	5	4	2	
HEAD	0	0	9	0	0	4	0	13	4	9	1	1	1	
HARR	0	0	0	0	0	0	0	0	0	0	0	0	0	
SUMMARY- ORDERS AUDIED DURING RPT PERIOD- ALL PROGRAMS														
REG OFF	ORDERS BY PRIORITY.....						TOTAL	TOTAL	TOTAL	TOTAL	REVIEW	ESTS	CASES	FACS
	I	II	III	IV	V	VI	NONE	ORDERS	SAT	UNSAT	REVIEW	ESTS	CASES	FACS
NORR	0	0	1	0	1	1	0	3	1	2	0	1	1	0
KING	0	0	0	2	0	0	0	2	2	0	0	1	1	1
READ	0	0	0	2	0	0	0	2	0	2	0	2	2	1
LEWT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RMPT	20	0	0	0	1	0	0	21	20	0	1	1	1	0
PITT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAD	1	0	2	0	0	0	0	3	0	3	0	0	0	0
HARR	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FINAL TOTALS														
VIOLATIONS	3	1	42	20	7	19	0	92	44	48	18	16	8	
ORDERS	21	0	3	4	2	1	0	31	23	7	1	5	5	
TOTAL	24	1	45	24	9	20	0	123	67	55	1	23	21	

Figure 20 (continued)

SRPZ10	COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT ACTIVITY REPORT FROM 01/01/74 TO 01/31/74										PAGE 8
FACILITY STATUS											RUN DATE 03/18/74
VIOLATIONS REFERRED TO DSE DURING REPORT PERIOD											
REG OFF VIOLATIONS BY PRIORITY.....											
	I	II	III	IV	V	VI	NONE	TOTAL VIOL	TOTAL SAT	TOTAL UNSAT	
NUPR	0	0	0	0	0	0	0	0	0	0	
KING	0	0	0	0	0	0	0	0	0	0	
READ	0	0	0	0	0	0	0	0	0	0	
LEWT	0	0	0	0	0	0	0	0	0	0	
WMPT	0	1	0	0	0	0	0	1	1	0	
PITT	0	0	0	0	0	0	0	0	0	0	
HEAD	0	0	0	0	0	0	0	0	0	0	
HARR	0	0	0	0	0	0	0	0	0	0	
ORDERS REFERRED TO DSE DURING REPORT PERIOD											
REG OFF ORDERS BY PRIORITY.....											
	I	II	III	IV	V	VI	NONE	TOTAL ORDERS	TOTAL SAT	TOTAL UNSAT	TOTAL REVIEW
NOKR	0	0	0	0	0	0	0	0	0	0	0
KING	0	0	0	0	0	0	0	0	0	0	0
READ	0	0	0	0	0	0	0	0	0	0	0
LEWT	0	0	0	0	0	0	0	0	0	0	0
WMPT	0	0	0	0	0	0	0	0	0	0	0
PITT	0	0	0	0	0	0	0	0	0	0	0
HEAD	0	0	0	0	0	0	0	0	0	0	0
HARR	0	0	0	0	0	0	0	0	0	0	0
FINAL TOTALS											
VIOLATIONS	0	1	0	0	0	0	0	1	1	0	
ORDERS	0	0	0	0	0	0	0	0	0	0	
TOTAL	0	1	0	0	0	0	0	1	1	0	

Figure 20 (continued)

Figure 20 (continued)

SRP#10	COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT ACTIVITY REPORT FROM 01/01/74 TO 01/31/74							PAGE 10
FACILITY STATUS								RUN DATE 03/18/74
VIOLATIONS COMPLIANCE ACHIEVED DURING REPORT PERIOD								
REG OFF	VIOLATIONS BY PRIORITY.....							TOTAL
	I	II	III	IV	V	VI	NONE	VIOL
NORR	0	0	0	0	0	0	0	0
KING	0	0	0	0	0	2	0	2
READ	0	0	0	0	0	0	0	0
LEWT	0	0	0	0	0	0	0	0
AMPT	0	0	0	0	0	0	0	0
PITT	0	0	0	0	0	0	0	0
MEAD	0	0	0	0	0	0	0	0
MARR	0	0	0	0	0	0	0	0
ORDERS COMPLIANCE ACHIEVED DURING REPORT PERIOD								
REG OFF	ORDERS BY PRIORITY.....							TOTAL
	I	II	III	IV	V	VI	NONE	ORDERS
NORR	0	0	0	0	0	0	0	0
KING	0	0	0	0	0	0	0	0
READ	0	0	0	0	0	0	0	0
LEWT	0	0	0	0	0	0	0	0
AMPT	0	0	0	0	0	0	0	0
PITT	0	0	0	0	0	0	0	0
MEAD	0	0	0	0	0	0	0	0
MARR	0	0	0	0	0	0	0	0
FINAL TOTALS								
VIOLATIONS	0	0	0	0	0	2	0	2
ORDERS	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	2	0	2

Figure 20 (continued)

SRPZ10 FACILITY STATUS WORKFLOW DURING REPORT PERIOD	COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT ACTIVITY REPORT FROM 01/01/74 TO 01/31/74										PAGE 11 RUN DATE 03/18/74	
	PRIORITY						TOTAL ACTIONS	TOTAL SAT	TOTAL UNSAT	TOTAL REVIEW	REPEAT VIOLATORS...	
	I	II	III	IV	V	VI	NONE			ESTS	CASES	FACS
VIOLATIONS ADDED	3	1	42	20	7	19	0	92	44	48	18	16
ORDERS ADDED	21	0	3	4	2	1	0	31	23	7	5	5
TOTAL	24	1	45	24	9	20	0	123	67	55	1	23
VIOL REFER DSF	0	1	0	0	0	0	0	1	1	0		
ORDR REFER DSF	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	0	0	0	0	1	1	0	0	0
VIOL RETN BWQM	0	0	0	0	0	0	0	0	0	0		
ORDR RETN BWQM	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
VIOL ACHVED COMP	0	0	0	0	0	2	0	2				
ORDR ACHVED COMP	0	0	0	0	0	0	0	0	0			
TOTAL	0	0	0	0	0	2	0	2				

Figure 20 (continued)

SRPZ10		COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT ACTIVITY REPORT FROM 01/01/74 TO 01/31/74						PAGE 12	RUN DATE 03/18/74						
FACILITY STATUS															
ACTION CATEGORY FOR VIOLATIONS DURING REPORT PERIOD															
ADMINISTRATIVE COMPLIANCE															
REG OFF		VIOLATIONS BY PRIORITY.....						TOTAL VIOL	TOTAL SAT	TOTAL UNSAT					
		I	II	III	IV	V	VI	NONE							
NORR															
		0	0	0	0	0	0	0	0	0					
KING															
		0	0	0	0	0	1	0	1	0					
READ															
		0	C	1	0	0	0	0	1	0					
LEWT															
		0	0	0	0	0	0	0	0	0					
WMPT															
		0	0	C	0	0	0	0	0	0					
PITT															
		0	0	0	0	0	0	0	0	0					
HEAD															
		0	0	0	0	0	0	0	0	0					
HARR															
		0	0	0	0	0	0	0	0	0					
SUB TOTAL		0	0	1	0	0	1	0	2	1	1				
CRIMINAL ENFORCEMENT															
NORR															
		0	0	0	0	0	0	0	0	0					
KING															
		0	0	0	0	0	0	0	0	0					
READ															
		0	0	0	0	0	0	0	0	0					
LEWT															
		0	0	0	0	0	0	0	0	0					
WMPT															
		0	0	0	0	0	0	0	0	0					
PITT															
		0	0	0	0	0	0	0	0	0					
HEAD															
		0	0	0	0	0	0	0	0	0					
HARR															
		0	0	0	0	0	0	0	0	0					
SUB TOTAL		0	0	0	0	0	0	0	0	0					
CIVIL ENFORCEMENT															
NORR															
		0	0	0	0	0	0	0	0	0					
KING															
		0	0	0	0	0	0	0	0	0					
READ															
		0	0	0	0	0	0	0	0	0					
LEWT															
		0	0	0	0	0	0	0	0	0					
WMPT															
		0	0	0	0	0	0	0	0	0					
PITT															
		0	0	0	0	0	0	0	0	0					
HEAD															
		0	0	0	0	0	0	0	0	0					
HARR															
		0	0	0	0	0	0	0	0	0					
SUB TOTAL		0	0	0	0	0	0	0	0	0					
FINAL TOTAL															
		0	0	1	0	0	1	0	2	1	1				

Figure 21

SRPZ30 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES FACILITY STATUS BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT STATUS TOTALS											PAGE 3 RUN DATE 03/18/74
VIOLATIONS OUTSTANDING AS OF 01/31/74											
PROGRAM- SEWAGE											
REG OFF VIOLATIONS BY PRIORITY											
	I	II	III	IV	V	VI	NONE	TOTAL VIOL	TOTAL SAT	TOTAL UNSAT	
NORR	17	13	21	17	5	8	12	93	46	47	
KING	17	0	1	3	4	1	18	44	27	17	
READ	0	0	21	0	2	0	8	31	3	28	
LEWT	0	0	25	4	13	7	11	60	13	47	
HMPT	1	1	11	10	13	13	0	49	15	34	
PITT	3	0	33	7	2	4	3	52	18	34	
MEAD	0	2	11	2	0	5	10	30	19	11	
HARR	0	0	0	0	0	0	0	0	0	0	
SUB TOTAL	38	16	123	43	39	38	62	359	141	218	
PROGRAM- OTHER SEWAGE											
NOPR	6	3	44	23	7	21	7	111	46	65	
KING	43	1	2	4	10	7	31	98	67	31	
READ	0	0	34	1	3	0	3	37	8	29	
LEWT	1	0	29	12	25	30	9	97	9	88	
HMPT	0	0	17	12	10	17	7	63	10	53	
PITT	4	3	31	10	11	14	7	80	40	40	
MEAD	0	4	23	11	1	17	10	66	46	20	
HARR	0	0	0	0	0	0	0	0	0	0	
SUB TOTAL	54	11	167	73	67	106	74	552	226	326	
PROGRAM- SING FAM SEWAGE											
NORR	0	0	0	3	0	1	0	4	1	3	
KING	13	0	0	6	0	0	0	19	19	0	
READ	0	0	0	0	0	0	0	0	0	0	
LEWT	0	0	3	0	0	0	0	0	0	0	
HMPT	0	0	9	12	0	0	4	25	0	25	
PITT	0	0	0	0	0	0	0	0	0	0	
MEAD	0	0	0	0	0	0	0	0	0	0	
HARR	0	0	0	0	0	0	0	0	0	0	
SUB TOTAL	13	0	9	21	0	1	4	48	20	28	
FINAL TOTAL	379	81	759	395	202	364	417	2,597	987	1,610	

Figure 21 (continued)

SRPZ30 COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL RESOURCES
 FACILITY STATUS BUREAU OF WATER QUALITY MANAGEMENT
 ENFORCEMENT STATUS TOTALS PAGE 6
 RUN DATE 03/18/74

ORDERS OUTSTANDING AS OF 01/31/74

PROGRAM- SEWAGE

REG OFF	ORDERS BY PRIORITY						TOTAL ORDERS	TOTAL SAT	TOTAL UNSAT	TOTAL REVIEW
	I	II	III	IV	V	VI				
NORR	64	15	42	81	7	67	26	302	163	115
KING	39	0	3	2	0	3	23	70	41	29
READ	0	0	19	5	0	1	51	76	38	37
LEWT	3	1	47	3	2	0	42	98	52	23
WMPT	20	2	1	27	0	2	54	106	63	30
PITT	1	0	91	3	11	16	147	269	174	31
MEAD	20	0	16	2	1	1	27	67	46	20
HARR	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	147	18	219	123	21	90	370	988	578	285
										125

PROGRAM- OTHER SEWAGE

NOPR	1	0	3	12	8	75	48	147	71	53	23
KING	7	0	0	0	4	0	7	18	15	2	1
READ	0	0	10	0	0	4	4	18	11	6	1
LEWT	0	0	0	1	2	0	13	16	10	4	2
WMPT	0	0	0	2	0	0	3	5	2	2	1
PITT	0	0	7	0	1	12	59	79	30	8	41
READ	1	0	2	0	0	0	4	7	2	4	1
HARR	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	9	0	22	15	15	91	138	290	141	79	70

PROGRAM- SING FAM SEWAGE

NORR	0	0	0	0	0	0	0	0	0	0	0
KING	0	0	0	0	0	0	0	0	0	0	0
READ	0	0	0	0	0	0	0	0	0	0	0
LEWT	0	0	0	0	0	0	0	0	0	0	0
WMPT	0	0	0	0	0	0	0	0	0	0	0
PITT	0	0	0	0	0	0	0	0	0	0	0
HEAD	0	0	0	0	0	0	0	0	0	0	0
HARR	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	0	0	0	0	0	0	0	0	0	0	0

FINAL TOTAL 218 36 324 233 70 271 846 1,998 970 568 460

Figure 21 (continued)

SRPZ30

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT
ENFORCEMENT STATUS TOTALS

PAGE 7
RUN DATE 03/18/74

VIOLATION TOTALS BY REGION AS OF 01/31/74

REG OFF	VIOLATIONS BY PRIORITY						TOTAL VIOL	TOTAL SAT	TOTAL UNSAT	
	I	II	III	IV	V	VI				
NORR	42	46	146	162	40	124	125	685	333	352
KING	135	3	10	30	27	25	90	320	209	111
READ	0	1	136	2	11	0	39	189	37	152
LEWT	3	1	102	62	59	74	45	326	45	281
HMPT	9	11	96	99	45	70	29	359	66	293
PITT	186	11	197	38	18	34	24	508	160	348
HEAD	4	8	72	22	2	37	65	210	137	73
HAR	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	379	81	759	395	202	364	417	2,597	987	1,610

ORDER TOTALS BY REGION AS OF 01/31/74

REG OFF	ORDERS BY PRIORITY						TOTAL ORDERS	TOTAL SAT	TOTAL UNSAT	TOTAL REVIEW
	I	II	III	IV	V	VI				
NORR	76	31	54	156	22	199	145	683	312	242
KING	59	0	4	2	19	8	36	128	93	33
READ	0	0	39	12	0	6	143	200	57	49
LEWT	3	1	50	4	6	0	65	129	66	32
HMPT	21	2	4	51	0	2	95	175	47	33
PITT	32	2	153	4	21	55	298	565	273	133
HEAD	27	0	20	4	2	1	64	118	74	32
HAR	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	218	36	324	233	70	271	846	1,998	970	568
FINAL TOTAL	597	117	1,083	628	272	635	1,263	4,595	1,957	2,178
										460

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Figure 21 (continued)

SRPZ30		COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT STATUS TOTALS							PAGE 8				
FACILITY STATUS									RUN DATE 03/18/74				
VIOLATIONS BEING PROCESSED, BY OFFICE AS OF 01/31/74													
REG OFF		VIOLATIONS BY PRIORITY	I	II	III	IV	V	VI	NONE	TOTAL VIOL	TOTAL SAT	TOTAL UNSAT	
NDPR	75	32	121	142	37	119	123	599	310	289			
KING	127	3	13	30	27	25	86	308	201	107			
READ	0	1	132	2	11	0	35	181	32	149			
LEWT	3	1	9	41	58	74	45	311	40	271			
WMPT	9	11	95	99	45	70	29	359	66	293			
PITT	133	9	162	35	14	33	23	516	126	290			
HEAD	2	7	63	21	2	36	52	183	119	64			
MARK	0	0	2	0	0	0	0	0	0	0			
SUB TOTAL	299	64	680	370	194	357	393	2,357	894	1,463			
ATTY HBG C	5	0	13	1	1	0	3	22	12	11			
ATTY PITT	55	3	36	4	4	2	14	118	52	66			
ATTY PHIL	20	14	25	20	3	5	7	94	26	68			
ATTY HBG R	0	0	5	0	0	0	0	5	3	2			
ATTY KING	0	0	0	0	0	0	0	0	0	0			
SUB TOTAL	80	17	79	25	8	7	24	240	93	167			
SUB TOTAL	379	81	759	395	202	364	417	2,597	987	1,610			
ORDERS BEING PROCESSED, BY OFFICE AS OF 01/31/74													
REG OFF		ORDERS BY PRIORITY	I	II	III	IV	V	VI	NONE	TOTAL ORDERS	TOTAL SAT	TOTAL UNSAT	TOTAL REVIEW
NDPR	72	19	53	149	19	196	145	653	303	221	129		
KING	55	0	4	2	19	8	34	122	90	30	2		
READ	0	0	39	12	0	6	143	200	57	49	94		
LEWT	1	1	49	3	6	0	64	123	66	27	30		
WMPT	20	2	4	43	0	2	76	147	80	46	23		
PITT	25	2	126	2	20	51	205	431	212	98	121		
HEAD	23	0	17	4	2	1	58	105	62	31	12		
MARK	0	0	0	0	0	0	0	0	0	0	0		
SUB TOTAL	196	24	291	215	66	264	725	1,781	870	500	411		
ATTY HBG C	3	0	23	10	1	1	64	102	47	14	41		
ATTY PITT	12	0	9	1	0	3	56	61	42	31	8		
ATTY PHIL	7	12	1	7	3	3	1	36	11	23	0		
ATTY HBG R	0	0	0	0	0	0	0	0	0	0	0		
ATTY KING	0	0	0	0	0	0	0	0	0	0	0		
SUB TOTAL	22	12	33	18	4	7	121	217	100	68	49		
SUB TOTAL	218	36	324	233	70	271	846	1,998	970	568	460		
FINAL TOTAL	597	117	1,083	628	272	635	1,263	4,595	1,957	2,178	460		

Figure 21 (continued)

SRPZ30		COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF WATER QUALITY MANAGEMENT ENFORCEMENT STATUS TOTALS							PAGE 9 RUN DATE 03/18/74							
ENFORCEMENT ACTION PERCENTAGES BY PROGRAM AS OF 01/31/74																
PROGRAM - WATER SUPPLY																
ESTABLISHMENTS	NORR	KING	READ	LENT	WMPT	PITT	MEAD	HARR	FINAL TOTAL							
NUMBER	93	143	220	168	179	183	189	0	1,175							
IN COMP	67	112	206	96	110	162	167	0	920							
IN VIOL	26	31	14	72	69	21	22	0	255							
SAT	11	19	4	2	14	10	19	0	79							
UNSAT	15	12	10	70	55	11	3	0	176							
REVIEW	0	0	0	0	0	0	0	0	0							
PERCENT																
IN COMP	72.0	78.3	93.6	57.1	61.5	88.5	88.4	0.0	78.3							
IN VIOL	28.0	21.7	6.4	42.9	38.5	11.5	11.6	0.0	21.7							
SAT	11.8	13.3	1.8	1.2	7.8	5.5	10.1	0.0	6.7							
UNSAT	16.1	8.4	4.5	41.7	30.7	6.0	1.6	0.0	15.0							
REVIEW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
CASES																
NUMBER	109	143	223	168	179	194	192	0	1,208							
IN COMP	63	112	209	96	110	171	170	0	951							
IN VIOL	26	31	14	72	69	23	22	0	257							
SAT	11	19	4	2	14	11	19	0	80							
UNSAT	15	12	10	70	55	12	3	0	177							
REVIEW	0	0	0	0	0	0	0	0	0							
PERCENT																
IN COMP	76.1	78.3	93.7	57.1	61.5	88.1	88.5	0.0	78.7							
IN VIOL	23.9	21.7	6.3	42.9	38.5	11.9	11.5	0.0	21.3							
SAT	10.1	13.3	1.8	1.2	7.8	5.7	9.9	0.0	6.5							
UNSAT	13.8	8.4	4.5	41.7	30.7	6.2	1.6	0.0	14.7							
REVIEW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
FACILITIES																
NUMBER	1,208	1,328	2,115	1,682	1,528	1,444	1,294	0	10,599							
IN COMP	1,164	1,291	2,101	1,593	1,445	1,421	1,269	0	10,284							
IN VIOL	44	37	14	89	83	23	25	0	315							
SAT	24	22	4	4	16	11	22	0	103							
UNSAT	20	15	10	85	67	12	3	0	212							
REVIEW	0	0	0	0	0	0	0	0	0							
PERCENT																
IN COMP	96.4	97.2	99.3	94.7	94.6	98.4	98.1	0.0	97.0							
IN VIOL	3.6	2.8	0.7	5.3	5.4	1.6	1.9	0.0	3.0							
SAT	2.0	1.7	0.2	0.2	1.0	0.8	1.7	0.0	1.0							
UNSAT	1.7	1.1	0.3	5.1	4.4	0.8	0.2	0.0	2.0							
REVIEW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							

Figure 22

Figure 23

PAW30 **COMMONWEALTH OF PENNSYLVANIA**
DEPARTMENT OF ENVIRONMENTAL RESOURCES
FACILITY STATUS INPUT VALIDATION ERROR LISTING **02/10/73** **PAGE 004**

Figure 23 (continued)

-FATW35

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
FACILITY STATUS INPUT VALIDATION ERROR LISTING

09/10/73 PAGE 003.

ERROR MESSAGE:

INPUT		ERRORS		OUTPUT	
ADDITIONS:	EST 9	ADDITIONS:	EST 1	ADDITIONS:	EST 8
CASE	10	CASE	1	CASE	9
FAC F	43	FAC F	4	FAC F	39
G	3	G	4	G	39
ORDER	3	ORDER	0	ORDER	3
VIOL	47	VIOL	1	VIOL	46
INSPEC	237	INSPEC	0	INSPEC	237
SUB TOTAL	392	SUB TOTAL	11	SUB TOTAL	381
CHANGES:	EST 1	CHANGES:	EST 0	CHANGES:	EST 1
CASE	3	CASE	1	CASE	2
FAC F	24	FAC F	0	FAC F	24
G	9	G	0	G	9
ORDER	9	ORDER	0	ORDER	9
VIOL	23	VIOL	0	VIOL	23
INSPEC	8	INSPEC	0	INSPEC	8
SUB TOTAL	77	SUB TOTAL	1	SUB TOTAL	76
DELETIONS	15	DELETIONS	0	DELETIONS	15
FAC STD	0	FAC STD	0	FAC STD	0
CR ADDS PROCESSED	0	CR ADDS PROCESSED	0	CR ADDS PROCESSED	0
INDETERMINATE	0	INDETERMINATE	0		
TOTAL INPUT	484	TOTAL ERRORS	12	TOTAL OUTPUT	472

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Figure 24

CFVW63

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL RESOURCES

RUN DATE 09/10/78

STORET ERROR LISTING

PAGE 3

0060000001111111111122222222233 33 3
123456789012345678901 23 4

RECORD ON FILE

REASON REJECTED

RDP6290720101203

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC
CC24 MUST BE *00*
CC25-30 MUST BE NUMERIC
CC31 MUST BE NUMERIC
CC32-33 MUST BE *00*
CC34 MUST BE A 1 OR 3

RDP6290720101202

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC
CC24 MUST BE *00*
CC25-30 MUST BE NUMERIC
CC31 MUST BE NUMERIC
CC32-33 MUST BE *00*
CC34 MUST BE A 1 OR 3

RDP6290720101203

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC
CC24 MUST BE *00*
CC25-30 MUST BE NUMERIC
CC31 MUST BE NUMERIC
CC32-33 MUST BE *00*
CC34 MUST BE A 1 OR 3

RDP6290720101204

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC
CC24 MUST BE *00*
CC25-30 MUST BE NUMERIC
CC31 MUST BE NUMERIC
CC32-33 MUST BE *00*
CC34 MUST BE A 1 OR 3

RDP6290720101403

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC
CC24 MUST BE *00*
CC25-30 MUST BE NUMERIC
CC31 MUST BE NUMERIC
CC32-33 MUST BE *00*
CC34 MUST BE A 1 OR 3

RDP6290720101603

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC
CC24 MUST BE *00*
CC25-30 MUST BE NUMERIC
CC31 MUST BE NUMERIC
CC32-33 MUST BE *00*
CC34 MUST BE A 1 OR 3

RDP6290720101703

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC

CC25-30 MUST BE NUMERIC

Figure 24 (continued)

CPWWS

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL RESOURCES

RUN DATE 05/10/78

STORED ERROR LISTING

PAGE 6

000000000111111-1112222222233-33-3
123456789012345678901 23 4

RECORD ON FILE:

REASON REJECTED
CC31 MUST BE NUMERIC
CC32-33 MUST BE '000'
CC34 MUST BE A 1 OR 3

RDP6290720101702

CC17-22 MUST BE NUMERIC
CC23 MUST BE NUMERIC
CC24 MUST BE '00'
CC25-30 MUST BE NUMERIC
CC31 MUST BE NUMERIC
CC32-33 MUST BE '000'
CC34 MUST BE A 1 OR 3

Figure 24 (continued)

CPWR05

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL RESOURCES

RUN DATE 08/10/73

STORED ERROR LISTING CONTROL TOTALS

PAGE 7

INPUT ADDITIONS: RAP RAQ RAR OTH SUB TOTAL:	ERRMRS ADDITIONS: RAP RAQ RAR OTH SUB TOTAL:	OUTPUT ADDITIONS: RAP RAQ RAR SUB TOTAL:
DELETIONS: RDP 15	DELETIONS: RDP 15	DELETIONS: RDP 15
TOTAL INPUT 15	TOTAL ERRORS 15	TOTAL OUTPUT
		OUTPUT ADD SETS

Figure 25

PAUW40 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES FACILITY STATUS UPDATE MASTER ACTIVITY LIST			
MESSAGE:			09/10/73 PAGE 024
	00000000111111111222222223333333444444445555555666666677777777778 1234567890123456789012345678901234567890123456789012345678901234567890		
ADDITION OF AN INSPECTION	*CAX650018120110730514KQM	0	3031104
ADDITION OF AN INSPECTION	CAX650018120110730529KQM	0	303105
ADDITION OF AN INSPECTION	CAX650018120110730319KQM	0	3033105
CHANGE OF A VIOLATION	CCV670016100110700304V65694177002260302011062102051473	1	
ADDITION OF AN INSPECTION	*CAX650055010110730424KQM	0	1111404
ADDITION OF AN INSPECTION	CAX650055010110730710KQM	0	
ADDITION OF AN INSPECTION	CAX650055010110730424KQM	0	3031104
ADDITION OF AN INSPECTION	CAX650055010110730710KQM	0	
ADDITION OF AN INSPECTION	CAX650055010110730111KQM	0	0119101
ADDITION OF AN INSPECTION	CAX6500550101012730424KQM	0	1111104
ADDITION OF AN INSPECTION	CAX6500550101012730710KQM	0	
ADDITION OF AN INSPECTION	CAX6500550101013730424KQM	0	6031204
ADDITION OF AN INSPECTION	CAX6500550101013730710KQM	0	
ADDITION OF A FACILITY	*CAF6500750601015071FALL #4 060604265007 2		26303-303
	CAC6500750601015071ALLEGHENY RIVER0000114920		
ADDITION OF A VIOLATION	*CAC65001630101010730402V46410107205250301013081102022873	3	
ADDITION OF AN INSPECTION	CAX65016301010107205257KQB	0	0330102
ADDITION OF AN INSPECTION	CAX6501630101010730228KQM	0	0330103
CHANGE OF A FACILITY	CCE6501630101010730228KQM	0	303 103
ADDITION OF AN INSPECTION	*CAX65012000701107307110KQM	0	
ADDITION OF A VIOLATION	*CAY6500150901010721214V00000007212140101012081453020373	3	
ADDITION OF AN INSPECTION	CAX6500150901010721214KQM	0	0033305
ADDITION OF A VIOLATION	*CAC6500230101100730207V46250527301040401013066102020773	6	
ADDITION OF AN INSPECTION	CAX6500230101100730207V00324457301040401013066102020773	6	0013104
ADDITION OF A VIOLATION	CAC65002301010730207V00324457301040401013066102020773	6	
ADDITION OF AN INSPECTION	CAX65002301010730207V00324457301040401013066102020773	6	1113104
ALREADY IN FILE	CAX65002301021007301041KQM	0	1113104
ADDITION OF A CASE	*CAC65002470102003KRESTVIEW MP STP 0100007903000000000000000000000000000000		
ADDITION OF A FACILITY	CAC65002470102100EXAIR-TRIKFL-S0 FLT01080546595400007300 260000001		
ADDITION OF A FACILITY	CAC650024701021006 19737320138L553M1264I4640707		
ADDITION OF A FACILITY	CAC6500247010210101CLIC HEAD,ALL 01080546595400007300 260000001		
ADDITION OF A FACILITY	CAC650024701021010701KELLEY RUN TRIB0010000003		

Figure 25 (continued)

TAU Y 60

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
FACILITY STATUS UPDATE MASTER ACTIVITY LIST

08/10/73

PAGE C25

MESSAGE

000000000111111112222222223333333344444444555555556666666677777777778
1234567890123456789012345678901234567890123456789012345678901234567890

INPUT		ERRORS		OUTPUT	
ADDITIONS:	EST	0	ADDITIONS:	EST	8
CASE	9	0	CASE	9	
FAC SET	78	4	FAC SET	37	
ORDER	3	0	ORDER	3	
VIOL	46	13	VIOL	33	
INSPEC	237	4	INSPEC	233	
SUB TOTAL	381	21	SUB TOTAL	323	
CHANGES:	EST	0	CHANGES:	EST	1
CASE	2	0	CASE	2	
FAC SET	33	2	FAC SET	31	
ORDER	9	0	ORDER	9	
VIOL	23	3	VIOL	20	
INSPEC	8	0	INSPEC	8	
SUB TOTAL	76	5	SUB TOTAL	71	
DELETIONS:	EST	0	DELETIONS:	EST	2
CASE	1	1	CASE	2	
FAC SET	5	0	FAC SET	13	
ORDER	0	0	ORDER	0	
VIOL	7	0	VIOL	7	
INSPEC	0	0	INSPEC	0	
SUB TOTAL	15	1	SUB TOTAL	26	
TOTAL INPUT	472	27	DEL GENERATED	12	
			TOTAL OUTPUT	420	
FAC STD	0		FAC STD	0	
CR ADDS PROCESSED	0		CR ADDS PROCESSED	0	
(EFFECTIVE)	0		(EFFECTIVE)	0	
CR DEL PROCESSED	0		CR DEL PROCESSED	0	
TOTAL TRANS INPUT	0		CR DEL GENERATED	15	
			TOTAL TRANS OUTPUT	15	

03RT 00100126

$$\frac{(472 - 39)}{433} = \frac{373}{433} + 12 = 25 + 12 = 420$$

other hand, the Cross-Reference Update (Figure 26) reports additions to the cross-reference file of latitude-longitude coordinate data.

Uses

The Facility Status Module and its Enforcement Sub-System easily are the most extensively used portion of WAMIS. The Facility File Listing and Identification Report are widely referred to by all segments of the Bureau of Water Quality Management. In headquarters these reports and the enforcement reports are used as a quick reference for a record of facility characteristics and status of compliance.

These reports are used even more extensively in the field. Inspectors routinely refer to the Identification Report prior to and during their visits to inspected facilities. It is claimed by the inspectors that the report is highly beneficial in refreshing their memories in follow-up inspections, routine inspections, and in preparing their input reports.

Field Compliance and Administration Chiefs claim that the enforcement reports greatly aid in keeping abreast of burgeoning information. Combined with regional files and hand-written notes on computer output, the reports make tracking and follow-up of orders and violations a much easier job.

Much of the other output, while serving a useful purpose, is confined to special or specific one-time interrogations or broad summaries.

In summary, the Facility Status Module output serves a highly useful purpose and aids in job accomplishment.

WATER QUALITY MODULE

General Description

The Water Quality Module maintains an information file on the chemical, biological, and physical characteristics (as determined by laboratory analyses) of all samples taken from the waters of the Commonwealth, including wastewater. The system accommodates inputs from a variety of sampling agencies. Further development of this module will include comparisons to established water quality standards and permit conditions to permit inspection and enforcement where deviations from standard are discovered.

It should be noted that the Water Quality Module has been completed only recently having undergone a number of major revisions. The Bureau of Water Quality Management has chosen to rely on the retrieval capabilities of the STORET System. The water quality data are being transferred to STORET and the system is scheduled to be operational by May 15, 1974.

Figure 26

CFURIO		COMMONWEALTH OF PENNSYLVANIA			
		DEPARTMENT OF ENVIRONMENTAL RESOURCES		07/13/78	
		CROSS REFERENCE UPDATE		PAGE: 8	
		RAP589105201010 41461400754420 00 1		CRFILE RECORD ADDED	
		RAP589105201011 414612007554419 00 1		CRFILE RECORD ADDED	
		RAP589105201012 414610007554390 00 1		CRFILE RECORD ADDED	
		RAP58912310101 415343007546243 00 1		CRFILE RECORD ADDED	
		RAP58920310103 414331007533050 00 1		CRFILE RECORD ADDED	
		RAP58920310106 414331107533050 00 1		CRFILE RECORD ADDED	
		RAP58920310107 414326007533060 00 1		CRFILE RECORD ADDED	
		RAP58920310111 4143411075632510 00 1		CRFILE RECORD ADDED	
		RAP5892031012 414331007532543 00 1		CRFILE RELFND ADDED	
		RAP5892031013 414331007532570 00 1		CRFILE RELFND ADDED	
		RAP589224101031 415312007534270 00 1		CRFILE RECORD ADDED	
		RAP589331101201 415715007535230 00 1		CRFILE RECORD ADDED	
		RAP589331101202 415716007535240 00 1		CRFILE RECORD ADDED	
		RAP589331101203 415715007535250 00 1		CRFILE RECORD ADDED	
		RAP589331101204 415714007115220 00 1		CRFILE RECORD ADDED	
		RAP589331101301 415715007535210 00 1		CRFILE RECORD ADDED	
		RAP589331101302 415714007535220 00 1		CRFILE RECORD ADDED	
		RAP589331101303 415700007535230 00 1		CRFILE RECORD ADDED	
		RAP589331101304 415716007535240 00 1		CRFILE RECORD ADDED	
		RAP589331101305 415715007535250 00 1		CRFILE RECORD ADDED	
		RAP589331101306 415715007535260 00 1		CRFILE RECORD ADDED	
		RAP589331101307 415715007535270 00 1		CRFILE RECORD ADDED	
		RAP589331101308 415715007535280 00 1		CRFILE RECORD ADDED	
		RAP589331101309 415715007535290 00 1		CRFILE RECORD ADDED	
		RAP589331101310 415715007535200 00 1		CRFILE RECORD ADDED	
		RAP589331101311 415715007535210 00 1		CRFILE RECORD ADDED	
		RAP589331101312 415715007535220 00 1		CRFILE RECORD ADDED	
		RAP589331101313 415715007535230 00 1		CRFILE RECORD ADDED	
		RAP589331101314 415715007535240 00 1		CRFILE RECORD ADDED	
		RAP589331101315 415715007535250 00 1		CRFILE RECORD ADDED	
		RAP589331101316 415715007535260 00 1		CRFILE RECORD ADDED	
		RAP589331101317 415715007535270 00 1		CRFILE RECORD ADDED	
		RAP589331101318 415715007535280 00 1		CRFILE RECORD ADDED	
		RAP589331101319 415715007535290 00 1		CRFILE RECORD ADDED	
		RAP589331101320 415715007535200 00 1		CRFILE RECORD ADDED	
		RAP589381101201 415159007531020 00 1		CRFILE RECORD ADDED	
		RAP589381101202 415140007531140 00 1		CRFILE RECORD ADDED	
		RAP589381101301 415221007531050 00 1		CRFILE RECORD ADDED	
		RAP589381101302 415103007531050 00 1		CRFILE RECORD ADDED	
		RAP589381101303 415103007531120 00 1		CRFILE RECORD ADDED	
		RAP589381101402 415108007531020 00 1		CRFILE RECORD ADDED	
		RAP589381101501 415157007530371 00 1		CRFILE RECORD ADDED	
		RAP589381101502 415146007531100 00 1		CRFILE RECORD ADDED	
		RAP589381101503 415149007531040 00 1		CRFILE RECORD ADDED	
		RAP589381101701 415158007531121 00 1		CRFILE RECORD ADDED	
		RAP589381101702 415150007531090 00 1		CRFILE RECORD ADDED	

Figure 26 (continued)

CMURIO COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES 07/13/78

	CROSS REFERENCE UPDATE	PAGE: 6
RAP5980210101101	414435107717171 00 1	CRFILE RECORD ADDED
RAP5980210101102	414436107717211 00 1	CRFILE RECORD ADDED
RAP5980210104174	414515007719240 00 1	CRFILE RECORD ADDED
RAP5980210105	414542007719120 00 1	CRFILE RECORD ADDED

Figure 26 (continued)

COMMONWEALTH OF PENNSYLVANIA			
DEPARTMENT OF ENVIRONMENTAL RESOURCES			
CROSS REFERENCE UPDATE		PAGE 7	
RIVER MILE INDEX		LATITUDE LONGITUDE	
PREVIOUS TOTAL	21604	21,010	201943
ADDED		239	239
DELETED			
CURRENT TOTAL	21624	21,269	211182
TOTAL INPUT	234		
STREAM SAMPLES			
TOTAL ERRORS	12		
CYLINDERS-AVAIL.	160		
CYLINDERS-US ED	64		
CYLINDERS-REMI	96		

Input

1. Water or Waste Quality Report -- This report comprises virtually all of the input to the Water Quality Module. All samples taken by various agencies within the state are accompanied by the form. As indicated earlier, each facility inspection usually includes at least one sample. Additionally, stream samples are taken at various locations throughout the state. Since the number of samples, as well as the parameters, measured results in a voluminous file, automated storage and retrieval of this information is essential.

Table 7 indicates the input information which comprises the Water or Waste Quality Report. Figure 27 shows a sample form.

Only selected analyses are run for each sample. Coded instructions permit the inspector to identify sampling location and conditions in sufficient detail so that a standard set of analyses is run for particular samples. For example, in the case of a new water supply, the following parameters would be run:

color
odor
pH
manganese
iron
sulfates
turbidity
alkalinity
ammonia
nitrite
nitrate
chloride
fluoride
hardness
total solids
orthophosphate

The manner in which the report is handled during a facility inspection has been explained previously. All samples collected by Bureau personnel are analyzed by Bureau laboratories. Interpretation of the results of all analyses are made principally by field or regional office staff.

2. Special Analyses Report -- On occasions where non-routine samples are taken or special conditions are observed by an inspector or sample collector, special analyses may be requested by the field. These special analyses results are entered on a special report form (Figure 28) which is attached to the Water or Waste Quality Report.

Table 7. WATER OR WASTE QUALITY REPORT INPUT INFORMATION

A. General Information

Type of sample (e.g., facility, network or random stream)

Date received

Establishment

Case

Facility

Collector identification number

County

Municipality

Program (e.g., water supply, bathing places, industrial waste, sewage)

Collector name

Type of treatment (e.g., for sewage - primary, secondary, tertiary, etc.)

Standard analysis group code

Identification code

Latitude

Longitude

Date and time of sample

Kind of sample (e.g., background, effluent, product, influent, storage, mixing zone)

USGS topographic map number

Sampling agency

(continued)

Table 7 (continued).

Sample number
Stream name
Relative point where sample taken
Source
Stream tributaries

B. Field Analyses

Sample type
Sample source
Reason sampled
Composite sample description
Flow measurements
Analyses (selected parameters)

C. Laboratory Analyses

Name of chemist
Date analyzed
Analyses (selected parameters)

ER-BWQ-13
REV 12-72

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0 - Not applicable - Code '0'

WATER SUPPLY

- 0 - No Treatment
- 1 - Disinfection
- 2 - Iron and/or Manganese removal + disinfection
- 3 - pH and/or alkalinity control + disinfection
- 4 - Softening
- 5 - Filtration
- 6 - Chelation
- 7 - Filtration + disinfection
- 8 - Filtration + disinfection
- 9 - Iron removal or softening, with disinfection

- 0 - No Treatment
- 2 - Neutralization, Oxidation & Sedimentation
- 3 - Oxidation & Sedimentation
- 4 - Pretreatment plus Filtration
- 5 - Ion Exchange
- 9 - Other

BATHING PLACES

- 0 - No Treatment
- 1 - Disinfection
- 5 - Filtration
- 7 - Filtration & Disinfection
- 9 - Other

SEWERAGE & INDUSTRIAL WASTES

- 0 - No Treatment
- 2 - Primary
- 3 - Intermediate
- 4 - Secondary
- 5 - Closed System
- 6 - Stabilization Basins
- 7 - Tertiary
- 9 - Other

KIND

- 1 - Background
- 2 - Effluent
- 3 - Product
- 4 - Intake water
- 5 - Intra-facility storage
- 6 - Mixing zone below discharge (finished water)
- 7 - Intra-facility - production

RELATIVE POINT IN STREAM AS VIEWED UPSTREAM

Depth	Left Shore	Center Stream	Right Shore
Surface	1	2	3
Center	4	5	6
Bottom	7	8	9

TYPE CODE

- 01 - Whole Water
 - 02 - Standard for Comparison
 - 03 - Liquid Filtrate*
 - 04 - Suspended Material*
 - 05 - Bottom Deposits
 - 06 - Biological Items
 - 07 - Floating Solids
 - 08 - Floating Liquids - Oils
 - 09 - Pesticides
- * - From Field Filtered Sample

SOURCE CODE

- 01 - Stream
- 02 - Lake
- 03 - Estuary
- 04 - Ocean*
- 05 - Well
- 06 - Spring
- 07 - Ground Water Monitoring Point
- 08 - Impoundment or Reservoir
- 09 - For Future Use
- 10 - Mine
- 11 - Treated Effluent or Water
- 12 - Direct, Untreated, Discharge
- 13 - In-plant Process

REASON CODE

- 01 - Routine Inspection
- 02 - Application Inspection
- 03 - Fish Kill
- 04 - Pollution Complaint or Incident
- 05 - Plant Survey
- 06 - Stream Survey
- 07 - Water Quality Network
- 08 - Water Fowl Affected
- 09 - Unusual Condition
- 10 - Compliance Follow-up

SAMPLE APPEARANCE CODE

COLOR CODE

- 01 - Clear
- 02 - Gray
- 03 - Milky
- 04 - Brown
- 05 - Black
- 06 - Blue
- 07 - Green
- 08 - Red
- 09 - Rust
- 10 - Straw
- 11 - Yellow
- 12 - Cloudy
- 13 - Clear with Particles
- 14 - Tan
- 15 - Muddy

INTENSITY CODE

- 1 - Slightly
- 2 - Moderately
- 3 - Very
- 4 - Extremely

FIELD ODOUR CODE

Relative Intensity

- 0 - None
- 1 - Mild
- 2 - Moderate
- 3 - Serious
- 4 - Extreme

Figure 27 continued

	01 Forests & Waters	02 Interstate Stream	03 Groundwater	04 MS Short	12 WS Long	13 Interstate	14 Bottled Water	31 Pool - Short	32 Pool - Long	33 Beaches - Short	34 Low Organics	35 Sand/Gravel	51 Metal	52 Coal Vapors	53 Fish Kills	56 Landfills	61 Mine Drainage	71 Sea - Short	80 DBC
Color	x	x	x	x	x			x	x							x			
Odor	x	x	x	x	x			x	x							x			
Turb	x	x	x	x	x			x	x	x						x	x		
pH	x	x	x	x	x			x	x	x						x	x	x	x
ATC	x	x	x	x	x			x	x	x						x	x	x	x
Phg Hot																x		x	
Fe Total	x	x	x	x				x							x	x	x	x	
Fe ++	*																		
SO ₄		x	x																x
Am		x	x																
Sp C		x														x			
P Total	x	x	x													x			
Tot Diss																x			
F		x	x	x															
BOD	x	x									x			x	x				
Tot Solids	x	x	-	x				x			x			x					
Susp Solids														x					
Set Solids			x											x					
NO ₂	x	x	x	x	x					x	x			x	x				
NO ₃	x	x		x	x					x	x			x	x				
NH ₃	x	x		x	x					x	x			x	x				
Kiel																			
Hardness	x	x	x										x						
Cl	x	x	x	x	x					x			x	x					
Phenol DBC								x											
Phenol DBC *								x											
BBAS		x																	
Cyanide	*								x										
Heavy Metals	*	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Fria French Sq	1	1	1	3	x	1								x		3			
Tot French Sq	2	3	2	2	3	1	1	2	1	1	1	1	1	1	1	1	1	1	1
1/2 Gal		2			1	1													1

* Required Fixing
 Fe ++ - 5 ml Conc HCl, No Air
 Phenol - 5 ml 10% CuSO₄/French Sq
 CN - NaOH to pH 12
 Heavy Metal - 5 ml Conc KNO₃/French Sq
 1 Gal = 2 half gal., 1 fixed heavy metals

Figure 28

ATTENTION: This form must be attached
to the Form ER-BWQ-13 Water
and Waste Quality Report.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

DATE RECEIVED.

Sample Number

— 1 —

Must be identical to
Water and Waste Quality Report

ESTABLISHMENT		CASE		FACILITY		COLL NUMBER	
COUNTY	MUNICIPALITY	PROGRAM	COLL NAME		TYPE TR	STD ANALYSIS	

QUALITATIVE REPORT

QUANTITATIVE RESULTS

ANALYST

SIGNATURE

PAGE

CENTRAL OFFICE

Output

Output from the Water Quality Module basically is input from the Water or Waste Quality Report transferred into the STORET system. Experience has shown that output is as accessible as that emanating from other modules. Figure 29 illustrates the current data flow for the Water Quality Module.

Samples are sent to the Bureau laboratories for analysis. Results of the analyses are then passed to the WAMIS section for processing, i.e., keypunching. All data and information processing is monitored by WAMIS operations. Subsequent to keypunching, the Water Quality Module converts, via appropriate programs, the data to magnetic tape in a format suitable for acceptance by the STORET system. The module also, through validation routines, issues error reports which are processed through WAMIS operations for correction. Back-up user reports are produced by the module, and basically are reports of sample analyses. The back-up reports enable regional personnel to identify instances of violation or non-compliance. Subsequent actions that could be taken by regional offices have been described previously.

Output from the STORET system is available through terminals at each regional office and at Bureau headquarters. All retrieval capabilities of STORET, within the constraints of Bureau input, are available to the users at the various terminals.

Uses

Because of the recent completion of this module, its usefulness has not been fully evaluated. A massive effort has been made to convert existing water quality sample files to a format suitable for input into STORET. It is expected that once a substantial data base is included in this module and its STORET interface, and when field personnel become more familiar with the output uses, the Water Quality Module should enjoy extensive use in much the same manner as the Facility Status Module.

CONTACT MODULE

General Description

The Contact System is organized into two autonomous systems: 1) a list of addresses of individuals, corporations, government agencies, and independent organizations which operate water processing facilities or are involved in water quality management; and 2) descriptive data on operator certification.

The various input and output forms and reports which comprise the Contact Module are listed in Table 8.

Figure 29. WATER QUALITY MODULE DATA FLOW

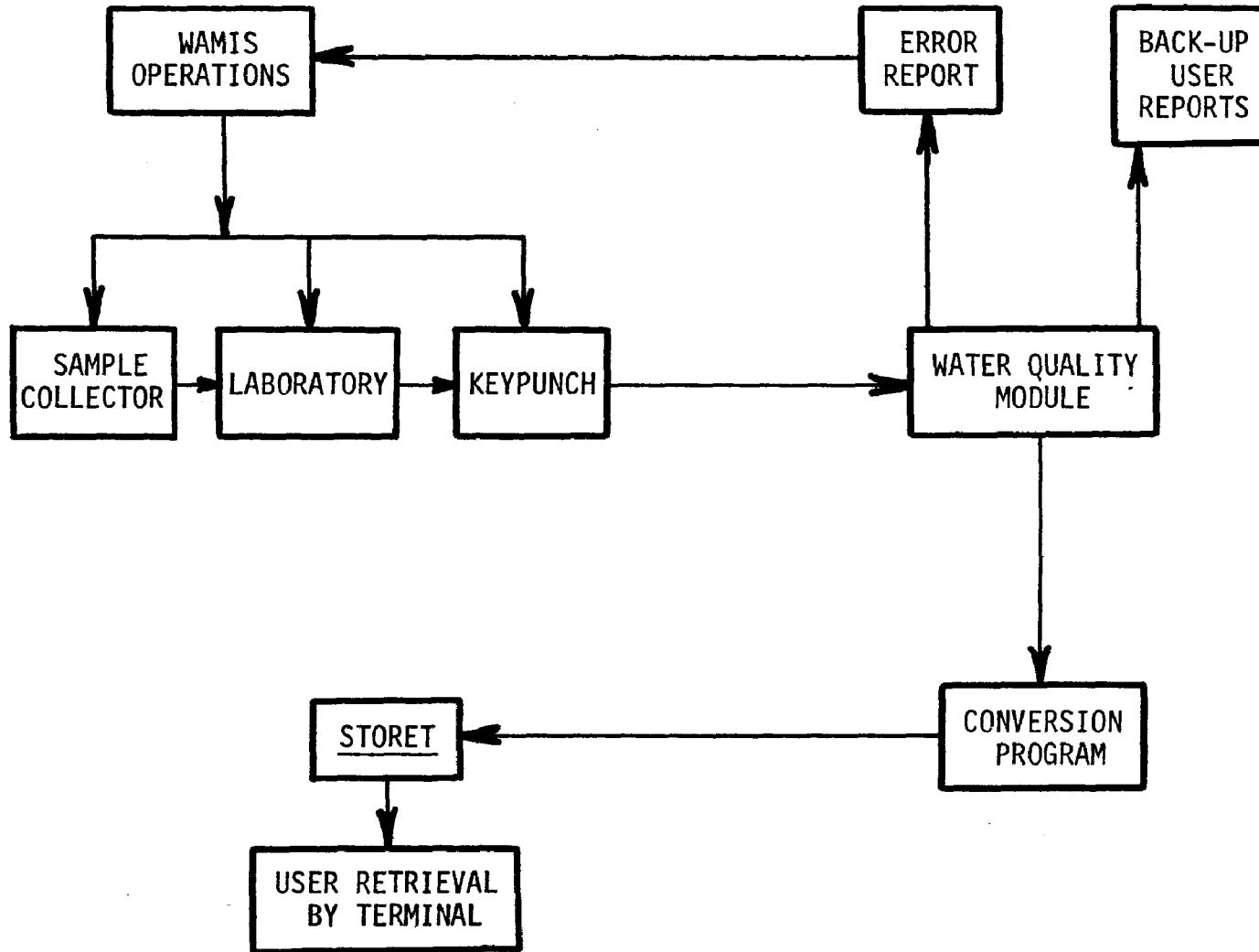


Table 8. CONTACT MODULE INPUT AND OUTPUT FORMS AND REPORTS

Input

Application for Certificate to Operate Sewage
Treatment Plants and Waterworks

Contact Subsystem Non-Certification Input

Output

Certified Operator Listing

Name and Address Listing

Activity Listing

Date Expiration Listing

Initial Error Listing

Input

1. Application for Certificate to Operate Sewage Treatment Plants and Waterworks -- Applicants for certification are obliged to fill out a detailed application which is submitted to the Bureau of Water Quality Management headquarters. Information required on these applications is shown in Table 9, with an example application shown in Figure 30. Certification is handled entirely through the headquarters Division of Water Supply and Sewerage. After processing the application, Division staff codes appropriate information for input into WAMIS. Most of the application information is coded with the exception of employment record. The module creates a permanent data file, but performs no decision-making function. Evaluations are made by Division of Water Supply and Sewerage staff.

2. Contact Subsystem Non-Certification Input -- From time to time the Bureau has a need to contact a broad variety of installations, groups, and individuals working in or with an interest in the field of water quality management. Included in these categories may be operators, consulting engineers, sewage treatment plants, waterworks companies, special commissions, boards, and public interest groups and associations. In order to categorize these groupings, the Chief of the WAMIS section has assigned a system identifier number. The system code identifier is for gross listing of various categories, while the system level number identifies divisions thereof.

A single form (Figure 31) is used to input information to the system, and action to include, change, or delete may come from many sources both within and outside of the Bureau. Information included in the input form is as follows:

- basic identification
- last name and initials
- social security number
- birthdate
- address
- telephone numbers (home and business)

Output

1. Certified Operator Listing -- In the course of certifying operators, the Division of Water Supply and Sewerage assigns system code and identification numbers for each operator. Likewise, certificate and operator numbers are assigned. The Certified Operator Listing prints out all the information included in Table 9 according to these assigned numbers, thus providing the Division with a complete and up-to-date list of certified operators. Figure 32 is a sample output of the Certified Operator Listing.

Table 9. CERTIFICATION APPLICATION INFORMATION

Identification

name
address
county
social security number
birthdate
testing location
telephones (home and business)

Number of years experience

Level of education

For special certificates:

job title
plant classification
plant name and address
supervisor's name and job title
current employer

For regular certificates:

professional engineer's registration
number
examined in civil or sanitary
previous certification
(by type and state)
certificate classification code
date of expiration
certificate number

Employment record

STATE BOARD FOR CERTIFICATION OF SEWAGE TREATMENT PLANT & WATERWORKS OPERATORS
APPLICATION FOR CERTIFICATE TO OPERATE SEWAGE TREATMENT PLANTS & WATERWORKS
(READ ATTACHED INSTRUCTIONS CAREFULLY BEFORE COMPLETING APPLICATION)

<input type="checkbox"/> REGULAR CERTIFICATE	<input type="checkbox"/> SPECIAL CERTIFICATE	TYPE OF PLANT FOR WHICH CERTIFICATION IS REQUESTED
		Figure 30
SECTION 1 – TO BE COMPLETED BY ALL APPLICANTS		
LAST NAME <input style="width: 100%;" type="text"/>		FIRST & MIDDLE INITIALS <input style="width: 100%;" type="text"/>
ADDRESS <input style="width: 100%;" type="text"/>		NUMBER & STREET
<input style="width: 100%;" type="text"/>		CITY
<input style="width: 100%;" type="text"/>		STATE
		ZIP CODE <input style="width: 100%;" type="text"/>
COUNTY _____		
SOCIAL SECURITY NO. <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> BIRTH DATE <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/> - <input style="width: 100%;" type="text"/>		
DESIRED TESTING LOCATION <input style="width: 100%;" type="text"/>		
TELEPHONE (Include Area Code): HOME _____ BUSINESS _____		
NUMBER OF YEARS EXPERIENCE AT:		
SEWAGE TREATMENT PLANT	EDUCATION	
	HIGHEST GRADE COMPLETED/DEGREE <input style="width: 100%;" type="text"/>	
WATER TREATMENT PLANT	TRAINING	
	CORRESPONDENCE COURSE(S) <input style="width: 100%;" type="text"/>	SHORT COURSE(S) <input style="width: 100%;" type="text"/>
WATER DISTRIBUTION SYSTEM	TYPE BY NO. <input type="checkbox"/> CARD TYPE <input type="checkbox"/>	
	TYPE BY NO. <input type="checkbox"/> CARD TYPE <input type="checkbox"/>	
I, _____ BEING DULY SWEORN ACCORDING TO LAW, DEPOSE AND SAY THAT I AM THE APPLICANT AND THAT THE STATEMENTS SUBMITTED IN THIS APPLICATION ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.		
AFFIDAVIT COMMONWEALTH OF PENNSYLVANIA COUNTY OF _____ SS SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF _____ 19 _____		
SIGNATURE OF APPLICANT		SEAL
NOTARY PUBLIC		THIS COMMISSION EXPIRES _____

I HAD THE DIRECT RESPONSIBILITY, AS DEFINED IN THE RULES AND REGULATIONS, FOR THE OPERATION OF THE PLANT/SYSTEM INDICATED BELOW ON NOVEMBER 18, 1968.

NOTE: EMPLOYER AND/OR SUPERVISOR MAY BE CONTACTED FOR VERIFICATION OF INFORMATION SUBMITTED BY YOU.

INDICATE BELOW ONLY DATA APPLICABLE TO YOUR EMPLOYMENT ON NOVEMBER 18, 1968

YOUR JOB TITLE		NAME & ADDRESS OF PLANT/DISTRIBUTION SYSTEM (Include County)		
PLANT CLASSIFICATION <table border="1"><tr><td> </td><td> </td><td> </td></tr></table>				

Figure 30 (continued)

CURRENT JOB TITLE	NAME & ADDRESS OF CURRENT EMPLOYER
-------------------	------------------------------------

SECTION 4 - TO BE COMPLETED BY APPLICANTS FOR REGULAR CERTIFICATES ONLY

PENNSYLVANIA PROFESSIONAL ENGINEER'S REGISTRATION NO. (If Applicable) <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>							EXAMINED IN CIVIL OR SANITARY ENGINEERING
	YES <input type="checkbox"/> NO <input type="checkbox"/>						

PREVIOUS CERTIFICATION

TYPE	CERTIFYING PROGRAM AGENCY	STATE									
VOLUNTARY											
MANDATORY											
CERTIFICATE CLASSIFICATION CODE <table border="1"><tr><td> </td><td> </td><td> </td></tr></table>				DATE CERTIFICATE EXPIRES <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>							CERTIFICATE NUMBER

EMPLOYMENT RECORD

INSTRUCTIONS: START WITH YOUR MOST RECENT EMPLOYMENT AND WORK BACK. DESCRIBE YOUR DUTIES AND RESPONSIBILITIES IN EACH JOB. IF YOUR DUTIES CHANGED, DESCRIBE EACH CHANGE AS A NEW POSITION. IF YOU REQUIRE MORE SPACE, USE PLAIN PAPER; BE SURE TO IDENTIFY ANY ADDITIONAL SHEETS WITH THE JOB NUMBER AND YOUR SOCIAL SECURITY NUMBER.

NAME & ADDRESS OF EMPLOYER	YOUR TITLE	DATE OF EMPLOYMENT MO. YR.	TYPE/CLASS OF PLANT SUPERVISOR'S NAME	NO. YOU SUPERVISE	OFFICIAL USE ONLY	
	JOB NO.				EVAL.	VER.

DUTIES & RESPONSIBILITIES

NAME & ADDRESS OF EMPLOYER	YOUR TITLE	DATE OF EMPLOYMENT FROM TO	TYPE/CLASS OF PLANT SUPERVISOR'S NAME	NO. YOU SUPERVISE	OFFICIAL USE ONLY	
	JOB NO.				EVAL.	VER.

DUTIES & RESPONSIBILITIES

NAME & ADDRESS OF EMPLOYER	YOUR TITLE	DATE OF EMPLOYMENT FROM TO	TYPE/CLASS OF PLANT SUPERVISOR'S NAME	NO. YOU SUPERVISE	OFFICIAL USE ONLY	
	JOB NO.				EVAL.	VER.

DUTIES & RESPONSIBILITIES

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Water Quality Management

CONTACT SUBSYSTEM NON-CERTIFICATION INPUT

Figure 31

ALL CARDS

CARD 1

CARD 2

2	ADDRESS LINE 1															HOME TELEPHONE									
39-58																59-68									

CARD 3

3		ADDRESS LINE 2		BUSINESS TELEPHONE	
38					
		39-58			
		59-68			

CARD 4

CHECK IF DELETE IS TO BE PUNCHED

38

NOTE

CHECK IF CHANGE TO INACTIVE

6

**FIELD IDENTIFICATIONS ARE FOR
STANDARD NAME AND ADDRESS LISTINGS.
FIELDS MAY BE UTILIZED FOR OTHER DATA
AT THE DISCRETION OF THE MONITOR
(Exception - Fields 2-4 may not be changed)**

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Figure 32

CONTACT SUBSYSTEM	COKKONIHEALTH-CR PENNSYLVANIA	PAGE		
PROGRAM-NCPREGO	DEPARTMENT OF ENVIRONMENTAL RESOURCES	AS-OF DATE 01/16/74		
#302	10130000000000000000	CERTIFIED OPERATOR LISTING		
SYS-CODE	ID-CODE	SYS-LEVEL	CERTIFICATE-NR.	OPERATOR-NR.
001	57-956-5-01-01-100	001	S1350	S1350
F-C-A3EL 105 N WATER ST SPRING GROVE PENNSYLVANIA 17302 192-32-1295	BUSINESS PHONE: 717-225-4711 HOME PHONE: 717-225-1508 COUNTY: YORK COUNTY LEVEL: 001 EDUCATION: 12 EXPERIENCE: /S 7/ /D /C TRAINING:	DATE OF BIRTH: 05/26/41 CERTIFICATE TYPE: REGULAR DATE CERTIFIED: 0771 EXPIRATION DATE: 74 CERTIFICATE KIND: S REGISTRATION NO: EXAMINED: NO	CERTIFICATE CLASS: PLANT SEWER DESIGN CAPACITY: 0 PLANT TYPE: 3 CERTIFICATE STATUS: A	
001	55-007-7-01-01-100	001	S2007	S2007
E ARTHACH 1104 WOODHORN AVE NEW KENSINGTON PA 15068 196-20-5C50	BUSINESS PHONE: 412-835-9913 HOME PHONE: 412-333-7305 COUNTY: WESTMORELAND COUNTY LEVEL: 001 EDUCATION: 10 EXPERIENCE: /S 11 /W /D /C TRAINING:	DATE OF BIRTH: 10/25/27 CERTIFICATE TYPE: REGULAR DATE CERTIFIED: 0973 EXPIRATION DATE: 74 CERTIFICATE KIND: S REGISTRATION NO: EXAMINED: NO	CERTIFICATE CLASS: PLANT SEWER DESIGN CAPACITY: E PLANT TYPE: 3 CERTIFICATE STATUS: A	
001	56-895-7-01-01-100	001	S0001	S0001
G-P-ACHE-GASC 13 SOUTH FOURTH HAMPTON PENNA 19526 170-22-1780	BUSINESS PHONE: 215-552-7322 HOME PHONE: 215-552-7562 COUNTY: BERKS COUNTY LEVEL: 001 EDUCATION: 12 EXPERIENCE: /S 08 /W /D /C TRAINING: 07	DATE OF BIRTH: 05/11/29 CERTIFICATE TYPE: SPECIAL DATE CERTIFIED: 1113 EXPIRATION DATE: 72 CERTIFICATE KIND: S REGISTRATION NO: EXAMINED: NO	CERTIFICATE CLASS: PLANT SEWER DESIGN CAPACITY: E PLANT TYPE: 6 CERTIFICATE STATUS: A	
001	06-804-7-01-01-100	001	S0166	S0166
H J ADAP 130-POPLAR-ST FLEETWOOD PENNA 19522 194-24-2017	BUSINESS PHONE: 215-944-6521 HOME PHONE: 215-944-7757 COUNTY: BERKS COUNTY LEVEL: 001 EDUCATION: 08 EXPERIENCE: /S 7/ /D /C TRAINING:	DATE OF BIRTH: 04/22/17 CERTIFICATE TYPE: SPECIAL DATE CERTIFIED: 1211 EXPIRATION DATE: 74 CERTIFICATE KIND: S REGISTRATION NO: EXAMINED: NO	CERTIFICATE CLASS: PLANT SEWER DESIGN CAPACITY: D PLANT TYPE: 1 CERTIFICATE STATUS: A	
001	57-915-8-01-01-100	001	S0002	S0002
A J ARAMS 743 PACKAGE ROAD	BUSINESS PHONE: 814-886-7113 HOME PHONE: 814-886-7113	DATE OF BIRTH: 03/20/18 CERTIFICATE TYPE: SPECIAL	CERTIFICATE CLASS: PLANT SEWER	

Figure 32 (continued)

CONTACT SUBSYSTEM	COMMONWEALTH OF PENNSYLVANIA				PAGE	2
PROGRAM #GDP930	DEPARTMENT OF ENVIRONMENTAL RESOURCES				AS OF DATE	01/16/74
#302	18100000000000000000 CERTIFIED OPERATOR LISTING					
SYS-Code	10-000E	SYS-LEVEL	CERTIFICATE NO.	OPERATOR NO.		
512532N PENNA	COUNTY	BLAIRE COUNTY	DATE CERTIFIED	1113	DESIGN CAPACITY	P
18133	LEVEL	001	EXPIRATION DATE	74		
191-10-0827	EDUCATION	09	CERTIFICATE KIND	S	PLANT TYPE	3
	EXPERIENCE /S 03 /W 7D /C		REGISTRATION NO			
	TRAINING		EXAMINED	NO	CERTIFICATE STATUS	A
001	55-915-7-01-01-100	001	S1313	S1313		
J R ADAMS 24-CLOUD TRAIL SHAGAWIN DAM PENNA	BUSINESS PHONE	717-5743-7368	DATE OF BIRTH	10/01/25	CERTIFICATE CLASS	
	HOME PHONE	717-5743-7368	CERTIFICATE TYPE	SPECIAL	PLANT	SEWER
17876	COUNTY	SNYDER COUNTY	DATE CERTIFIED	1171	DESIGN CAPACITY	L. E
210-16-2137	LEVEL	001	EXPIRATION DATE	74		
	EDUCATION	11	CERTIFICATE KIND	S	PLANT TYPE	6
	EXPERIENCE /S 03 /W 7D /C		REGISTRATION NO			
	TRAINING		EXAMINED	NO	CERTIFICATE STATUS	A
001	07-001-7-02-01-100	001	S1894	S1894		
J R ADAMS 2229 WASHINGTON AVE ALTADENA PA	BUSINESS PHONE	814-944-7131	DATE OF BIRTH	03/27/09	CERTIFICATE CLASS	
	HOME PHONE	814-944-1597	CERTIFICATE TYPE	SPECIAL	PLANT	SEWER
18501	COUNTY	BLAIRE COUNTY	DATE CERTIFIED	0473	DESIGN CAPACITY	C
170-12-0651	LEVEL	001	EXPIRATION DATE	74		
	EDUCATION	11	CERTIFICATE KIND	S	PLANT TYPE	3
	EXPERIENCE /S 19 /W 7D /C		REGISTRATION NO			
	TRAINING		EXAMINED	NO	CERTIFICATE STATUS	A
001	06-955-7-01-01-100	001	S0581	S0581		
L P ADAMS 181-E-PENN-AVE NEWERSVILLE PENNA	BUSINESS PHONE	676-1726	DATE OF BIRTH	10/24/25	CERTIFICATE CLASS	
	HOME PHONE	676-1726	CERTIFICATE TYPE	SPECIAL	PLANT	SEWER
19565	COUNTY	BERKS COUNTY	DATE CERTIFIED	0219	DESIGN CAPACITY	D
193-12-5634	LEVEL	001	EXPIRATION DATE	74		
	EDUCATION	10	CERTIFICATE KIND	S	PLANT TYPE	6
	EXPERIENCE /S 19 /W 19 /D 19 /C		REGISTRATION NO			
	TRAINING		EXAMINED	NO	CERTIFICATE STATUS	A
001	63-001-7-01-01-100	001	S2008	S2008		
J W ADAMS 102 A COLLEGE ST CAMDENSBURG PA	BUSINESS PHONE	412-745-8029	DATE OF BIRTH	07/05/49	CERTIFICATE CLASS	
	HOME PHONE	412-745-2441	CERTIFICATE TYPE	REGULAR	PLANT	SEWER
15217	COUNTY	WASHINGTON COUNTY	DATE CERTIFIED	0973	DESIGN CAPACITY	P
189-60-4535	LEVEL	001	EXPIRATION DATE	74		
	EDUCATION	12	CERTIFICATE KIND	S	PLANT TYPE	3
	EXPERIENCE /S 91 /W 7D /C		REGISTRATION NO			
	TRAINING		EXAMINED	NO	CERTIFICATE STATUS	A
001	17-938-8-01-01-100	001	S0003	S0003		

Figure 32 (continued)

CONTACT SUBSYSTEM					COMMONWEALTH OF PENNSYLVANIA					PAGE
PROGRAM #G3PR53					DEPARTMENT OF ENVIRONMENTAL RESOURCES					AS OF DATE 01/16/74
#302 19190900090000000000					CERTIFIED OPERATOR LISTING					
SYS-CODE	ID-CODE	SYS-LEVEL			CERTIFICATE-NR.			OPERATOR-NR.		
E C AHLBERG 83X-15 LAURE PEN-SYLVANIA	16849 210-05-9237	BUSINESS PHONE HOME PHONE COUNTRY LEVEL EDUCATION EXPERIENCE TRAINING	-614-345-5249 -CLEARFIELD COUNTY- -CO1- CB /S 08 /H /D /C - -	DATE OF BIRTH CERTIFICATE-TYPE DATE CERTIFIED EXPIRATION DATE CERTIFICATE KIND S REGISTRATION NO EXAMINED	02/06/11 SPECIAL 1113 74 S NO	CERTIFICATE CLASS PLANT SEWER DESIGN CAPACITY E P	3	SC410 SC410	SC410 SC410	
E F AFRENS 433 GREENE ROAD WARTISTER PEN-SYLVANIA	16974 199-05-2965	BUSINESS PHONE HOME PHONE COUNTRY LEVEL EDUCATION EXPERIENCE TRAINING	-415-6113 -215-MUS-3773 -BUCKS COUNTY- -CO1- 12 /S 09 /H /D /C - -	DATE OF BIRTH CERTIFICATE TYPE DATE CERTIFIED EXPIRATION DATE CERTIFICATE KIND S REGISTRATION NO EXAMINED	06/15/09 REGULAR 0115 74 S NO	CERTIFICATE CLASS PLANT SEWER DESIGN CAPACITY E P	3	SC410 SC410	SC410 SC410	
W C AIKINS RD 2 SEVEN VALLEYS. PEN-SYLVANIA	17360 162-23-3538	BUSINESS PHONE HOME PHONE COUNTRY LEVEL EDUCATION EXPERIENCE TRAINING	-225-4731 -225-1691 -YORK COUNTY- -CO1- in /S 02 /H /D /C - -	DATE OF BIRTH CERTIFICATE-TYPE DATE CERTIFIED EXPIRATION DATE CERTIFICATE KIND S REGISTRATION NO EXAMINED	03/13/85 SPECIAL 0219 74 S NO	CERTIFICATE CLASS PLANT SEWER DESIGN CAPACITY E P	3	SC582 SC582	SC582 SC582	
P ALBERT 2812 WALNUT ST SET-EL PARK PEN-A	15102 182-12-0223	BUSINESS PHONE HOME PHONE COUNTRY LEVEL EDUCATION EXPERIENCE TRAINING	-412-941-6709 -412-835-7366 -WASHINGTON COUNTY- -CO1- 12 /S 13 /H /D /C - -	DATE OF BIRTH CERTIFICATE TYPE-SPECIAL DATE CERTIFIED EXPIRATION DATE CERTIFICATE KIND S REGISTRATION NO EXAMINED	01/26/21 SPECIAL 0771 74 S NO	CERTIFICATE CLASS PLANT SEWER DESIGN CAPACITY E P	3	S1126 S1126	S1126 S1126	
P ALBERT 2812 WALNUT ST SET-EL PARK PEN-A	15102	BUSINESS PHONE HOME PHONE COUNTRY LEVEL EDUCATION	-412-941-6709 -412-835-7366 -99- -CO1- 12	DATE OF BIRTH CERTIFICATE TYPE-REGULAR DATE CERTIFIED EXPIRATION DATE CERTIFICATE KIND S	01/26/21 REGULAR 1071 74 S	CERTIFICATE CLASS PLANT SEWER DESIGN CAPACITY E	3	S1306 S1306	S1306 S1306	

Figure 32 (continued)

CONTACT SUBSYSTEM	COMMONWEALTH OF PENNSYLVANIA				PAGE
PROGRAM MCP450	DEPARTMENT OF ENVIRONMENTAL RESOURCES				AS OF DATE 01/16/74
#3C2	16010000000000000000	CERTIFIED OPERATOR LISTING			
SYS CODE	ID CODE	SYS LEVEL	CERTIFICATE NO.	OPERATOR NO.	
001	01-801-7-01-01-100	001	S0550	S0550	
F T SHEALER	BUSINESS PHONE 717-334-6739	DATE OF BIRTH 04/11/13	CERTIFICATE CLASSI		
253 EAST MIDDLE ST	HOME PHONE 717-334-5055	CERTIFICATE TYPE=REGULAR	PLANT SEWER		
GETTYSBURG	COUNTY ADAMS COUNTY	DATE CERTIFIED 01/15	DESIGN CAPACITY E		
PENNSYLVANIA	LEVEL 001	EXPIRATION DATE 72			
17325	EDUCATION 12	CERTIFICATE KIND S	PLANT TYPE 3		
EXPERIENCE /S 31 /F 10 /C 10	REGISTRATION NO				
176-C7-0971	TRAINING	EXAMINED NO	CERTIFICATE STATUS A		
001	01-801-7-01-01-100	001	S1525	S1525	
F B ALBERTS	BUSINESS PHONE 717-334-6738	DATE OF BIRTH 01/12/23	CERTIFICATE CLASSI		
223 EAST MIDDLE STREET	HOME PHONE 717-334-2719	CERTIFICATE TYPE=SPECIAL	PLANT SEWER		
GETTYSBURG	COUNTY ADAMS COUNTY	DATE CERTIFIED 04/11	DESIGN CAPACITY D		
PENNA	LEVEL 001	EXPIRATION DATE 74			
17325	EDUCATION 12	CERTIFICATE KIND S	PLANT TYPE 1		
EXPERIENCE /S 09 /F 10 /C 10	REGISTRATION NO				
193-10-4425	TRAINING	EXAMINED NO	CERTIFICATE STATUS A		
001	01-801-7-01-01-100	001	S0830	S0830	
A J SPALDING	BUSINESS PHONE 717-334-6738	DATE OF BIRTH 06/29/29	CERTIFICATE CLASSI		
744 SUNSET AVENUE	HOME PHONE 717-334-1241	CERTIFICATE TYPE=SPECIAL	PLANT SEWER		
GETTYSBURG	COUNTY ADAMS COUNTY	DATE CERTIFIED 04/71	DESIGN CAPACITY D		
PENNSYLVANIA	LEVEL 001	EXPIRATION DATE 74			
17325	EDUCATION 12	CERTIFICATE KIND S	PLANT TYPE 1		
EXPERIENCE /S 05 /F 7 /C 7	REGISTRATION NO				
205-22-4611	TRAINING	EXAMINED NO	CERTIFICATE STATUS A		
001	01-802-7-01-01-100	001	S0094	S0094	
G E UHLER	BUSINESS PHONE 717-359-5636	DATE OF BIRTH 13/03/15	CERTIFICATE CLASSI		
21 C HOUSE PARK	HOME PHONE 717-359-4524	CERTIFICATE TYPE=SPECIAL	PLANT SEWER		
LITTLESTOWN	COUNTY ADAMS COUNTY	DATE CERTIFIED 11/13	DESIGN CAPACITY E		
PENNA	LEVEL 001	EXPIRATION DATE 74			
17340	EDUCATION 08	CERTIFICATE KIND S	PLANT TYPE 4		
EXPERIENCE /S 04 /F 10 /C 10	REGISTRATION NO				
179-J7-1618	TRAINING	EXAMINED NO	CERTIFICATE STATUS A		
001	01-803-7-01-01-100	001	S0076	S0076	
S KRICHTEN	BUSINESS PHONE 717-637-1838	DATE OF BIRTH 03/19/10	CERTIFICATE CLASSI		
230 S FIFTH ST	HOME PHONE 717-637-2691	CERTIFICATE TYPE=SPECIAL	PLANT SEWER		

Figure 32 (continued)

CONTACT SUBSYSTEM		COMMONWEALTH OF PENNSYLVANIA		PAGE	2
PROGRAM & CODE		DEPARTMENT OF ENVIRONMENTAL RESOURCES		AS OF DATE: 01/16/74	
0302	1F01000000000000000000	CERTIFIED OPERATOR LISTING			
SYS CODE	ID CODE	SYS LEVEL	CERTIFICATE NO.	OPERATOR NO.	
HCSMERYSTOWN PA	ADAMS COUNTY	DATE CERTIFIED 1113 EXPIRATION DATE 74 CERTIFICATE KIND S REGISTRATION NO EXAMINED NO	DESIGN CAPACITY 6 E		
LEVEL 001 EDUCATION 07 EXPERIENCE /S 05 /W 10 /C 160-16-4354 THAILAND				PLANT TYPE 4	
001	01-803-7-01-01-100	001	SD122	SD122	
H W SMITH 502 DELONE AVENUE HCSMERYSTOWN PA	BUSINESS PHONE 717-637-1438 HOME PHONE 717-637-5520 COUNTY ADAMS COUNTY	DATE OF BIRTH 03/19/28 CERTIFICATE CLASSI CERTIFICATE TYPE SPECIAL PLANT SEWER			
LEVEL 001 EDUCATION 00 EXPERIENCE /S 05 /W 10 /C 225-15-3663 THAILAND		DATE CERTIFIED 1113 DESIGN CAPACITY 6 E			
001	01-908-7-01-01-100	001	S1642	S1642	
C R CHUISE WEST YORK BIGLERVILLE PA	BUSINESS PHONE 717-677-6892 HOME PHONE 717-677-7408 COUNTY ADAMS COUNTY	DATE OF BIRTH 09/25/35 CERTIFICATE CLASSI CERTIFICATE TYPE REGULAR PLANT SEWER			
LEVEL 001 EDUCATION 12 EXPERIENCE /S 03 /W 10 /C 177-39-7603 THAILAND		DATE CERTIFIED 0772 DESIGN CAPACITY 6 E			
001	01-905-7-01-01-100	001	S1635	S1635	
J L LUPP BOX #43 ASPERS PA	BUSINESS PHONE 717-677-7504 HOME PHONE 717-677-7504 COUNTY ADAMS COUNTY	DATE OF BIRTH 02/14/19 CERTIFICATE CLASSI CERTIFICATE TYPE REGULAR PLANT SEWER			
LEVEL 001 EDUCATION 12 EXPERIENCE /S 03 /W 10 /C 108-C3-0176 THAILAND		DATE CERTIFIED 0772 DESIGN CAPACITY 6 E			
001	01-912-7-01-01-100	001	S1579	S1579	
L C SLOTHOUR 120 E KING BOX 568 EAST BERLIN PA	BUSINESS PHONE 717-259-3202 HOME PHONE 717-258-4081 COUNTY ADAMS COUNTY	DATE OF BIRTH 07/03/29 CERTIFICATE CLASSI CERTIFICATE TYPE REGULAR PLANT SEWER			
LEVEL 001 EDUCATION 12 EXPERIENCE /S 05 /W 05 /D 05 /C 205-15-3663 THAILAND		DATE CERTIFIED 0772 DESIGN CAPACITY 6 E			
001	01-913-7-01-01-100	001	SD583	SD583	

Examples of certificates and wallet renewal forms issued through use of the module are illustrated in Figures 33 and 34, respectively.

2. Name and Address Listing -- This report is a compilation of all inputs submitted by the Contract Subsystem Non-Certification Input. It conforms in all respect to that input. An example partial listing of consulting engineers whose names and addresses are included in the subsystem is given in Figure 35.

3. Activity Listing -- This output report is a summary of activities within the certification program for a given report period. The output from this report includes: type of activity (errors, additions, deletions, changes), operator identification codes, names and addresses, and comments (diagnostics) such as "addition to contact master".

The report also totals the number of activities during the report period, and given output totals such as number of name and address reports and labels, certified operators, and certificates and wallet renewal forms issued.

4. Date Expiration Listing -- This report identifies operators by name and address whose certification requires renewal.

5. Initial Error Listing -- This report cites errors and the reason for rejection in the certification input. It also compiles totals for records input and dropped and errors found.

Uses

The two parts of the Contact Module are the certification portion and the contact portion. As stated earlier, the Division of Water Supply and Sewerage administers the certification program making extensive use of this module. All applications are processed through the system, mailings are made using it, and certificates and wallet renewals are printed by it. All of the certification program files are contained within this WAMIS Module.

Notification of policy changes, hearings, modified or new state and federal regulations, and general interest information can be made by mailings through use of the system. This notification can be broad or selective depending upon the "system levels" that are accessed.

A typical example of the usefulness of the Contact Module occurred following Hurricane Agnes where it was imperative to issue instructions to numerous groups.



S P E C I M E N

Department of Environmental Resources

In accordance with the
SEWAGE TREATMENT PLANT AND WATERWORKS OPERATORS CERTIFICATION ACT
and the Regulations of the
STATE BOARD FOR CERTIFICATION

Is Hereby Authorized To Operate

Figure 33

Certificate No.

Date Issued



Chairman, Certification Board

Figure 34

POCKET CARD (FOR YOUR PERSONAL USE)		CERTIFICATE VALIDATION DISPLAY WITH CERTIFICATE (REPLACE WHEN CERTIFICATE IS RENEWED)	
STATE BOARD FOR CERTIFICATION OF SEWAGE TREATMENT PLANT AND WATERWORKS OPERATORS		STATE BOARD FOR CERTIFICATION OF SEWAGE TREATMENT PLANT AND WATERWORKS OPERATORS	
CERTIFICATE NO. S2319 Joseph Smith 443 Herald Ave. Sunshine City, Pa. 16001		CERTIFICATE NO. S2319 Joseph Smith 443 Herald Ave. Sunshine City, Pa. 16001	
IS AUTHORIZED TO OPERATE Sewage Treatment Plant E 4		VALID UNTIL June 30, 1974 DISPLAY WITH CERTIFICATE REPLACE WHEN CERTIFICATE IS RENEWED YOU WILL BE NOTIFIED WHEN TO APPLY FOR RENEWAL	
VALID UNTIL June 30, 1974			
POCKET CARD (FOR YOUR PERSONAL USE)		CERTIFICATE VALIDATION DISPLAY WITH CERTIFICATE (REPLACE WHEN CERTIFICATE IS RENEWED)	
STATE BOARD FOR CERTIFICATION OF SEWAGE TREATMENT PLANT AND WATERWORKS OPERATORS		STATE BOARD FOR CERTIFICATION OF SEWAGE TREATMENT PLANT AND WATERWORKS OPERATORS	
CERTIFICATE NO. S2319 Joseph Smith 443 Herald Ave. Sunshine City, Pa. 16001		CERTIFICATE NO. S2319 Joseph Smith 443 Herald Ave. Sunshine City, Pa. 16001	
IS AUTHORIZED TO OPERATE Sewage Treatment Plant E 4		VALID UNTIL June 30, 1974 DISPLAY WITH CERTIFICATE REPLACE WHEN CERTIFICATE IS RENEWED YOU WILL BE NOTIFIED WHEN TO APPLY FOR RENEWAL	
VALID UNTIL June 30, 1974			

Figure 35

CONTACT SUBSYSTEM

COMMONWEALTH OF PENNSYLVANIA

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PROGRAM #COP250

DEPARTMENT OF ENVIRONMENTAL RESOURCES

AS OF DATE 08/29/73

*103014		09100000000000000000	NAME AND ADDRESS LISTING	
SYSTEM CONTROL FIELDS			NAME AND ADDRESSES	TELEPHONES
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	13461	W R WHITLEY 807 BANCROFT RD ERIE PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	14989	W B WHITTICK 1810 MARKET ST CA'P HILL PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	06555	A L WIESENBERGER ASC INC 3440 HAMILTON BLVD ALLENTOWN PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	09129	R F WILPS 449 COLLEGE AVE GREENSBURG PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	14933	J L WILSON REGIONAL CIVIL ENG 302 N MERCER ST NEW CASTLE PA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	99-020	VITCH CHEMICAL CORP SENIOR PROCESS ENG. PENNSA PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	11577-E	YERKES ENG. CO 101 CHARLES DR BRYN MAWR PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	51-005	P H YERDMANS, INC 1920 CHESTNUT ST PHILADELPHIA PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	05489	W YOCUM 925 ORANGE ST SHAWNEE PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	05173	W W YOST 315 E MARKET ST CLEARFIELD PENNA	BUSINESS HOME	S.S. NUMBER BIRTH DATE / /

Figure 35 (continued)

CONTACT SUBSYSTEM

COMMONWEALTH OF PENNSYLVANIA

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PROGRAM #COPR50

DEPARTMENT OF ENVIRONMENTAL RESOURCES

AS OF DATE 08/29/73

*103014	00100000000000000000	NAME AND ADDRESS LISTING		
		SYSTEM CONTROL FIELDS	NAME AND ADDRESSES	TELEPHONES
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	17-003	YOST ASSOCIATES, INC DEPSIT NAT BANK BLD DUL BOIS PENNA	BUSINESS HOME HOME	S.S. NUMBER / / BIRTH DATE
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	01803-E	W. ZARDAN 843-945 4TH AVE PHILADELPHIA PENNA	BUSINESS HOME 15108	S.S. NUMBER / / BIRTH DATE
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	05133-E	J G ZABETAKIS 338 LAKEVIEW AVE NEW CASTLE PENNA	BUSINESS HOME 16101	S.S. NUMBER / / BIRTH DATE
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	04940	W J ZIMMERMAN PUNXUTAWNEY PENNA	BUSINESS HOME 15767	S.S. NUMBER / / BIRTH DATE
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL PA	03406-E	K J ZITTLER PHILA WATER DEPT CITY HALL ANX RM1000 PHILADELPHIA PA	BUSINESS HOME 19107	S.S. NUMBER / / BIRTH DATE
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL TE	99-COB	GENERAL DYNAMICS BILTMORE HEALTH CENTER P O BOX 748 FORT WORTH TEXAS	BUSINESS HOME 17601	S.S. NUMBER / / BIRTH DATE
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL JV	99-CO2	PALT & U-HI RR CO ENV CONTROL ENG P O BOX 2007 HUNTINGDON W V	BUSINESS HOME 25712	S.S. NUMBER / / BIRTH DATE
SYS CODE 014 ID CODE CONSULTING ENGINEERS SYS LEVEL JV	99-019	WHEELING PITTSBURGH STEEL CORP DIR OF ENV CONTROL WHEELING W VIRGINIA	BUSINESS HOME 26003	S.S. NUMBER / / BIRTH DATE
12				
11				
10				
9				
8				
7				
6				
5				
4				
3				
2				

NAME FILE

General Description

The Name File is used in support of all systems as needed, but is maintained independently of them. Elements of the Name File can be used in all modules. The types of names maintained are counties, municipalities, regions, field offices, streams, and stations.

Input and output forms and reports which comprise the Name File are shown in Table 10.

Input

Four basic inputs are used in the Name File: county and municipality, network, indicator (parameter) and basin. Inputs may come from a variety of sources within the Bureau, and are intended to file information for each category.

The county and municipality input (Figure 36) includes an identification number for the county (two digit) and the municipality (three digit). In addition, the name of the county or municipality is listed along with an abbreviation. Appropriate numerical codes for cognizant region and field office are included.

Network stations are included as part of the Name File. For each station, the following information is input into WAMIS by the Division of Water Quality (Figure 37): a pre-determined station identification code number, station description (e.g., "Trenton Avenue Bridge at Morrisville"), stream name, type of station, region, field office, latitude-longitude, and map number.

An indicator is a STORET parameter such as sample weight in pounds, water temperature in degrees Fahrenheit, or chemical concentration in mg/l. In order to input into the Name File, the following information must be coded in the field: indicator code number, indicator name (description), and the value and decimal locator (Figure 38). This information is loaded from EPA's STORET parameter code file to provide consistency between agencies.

The basin input into the Name File simply is coded numbers for the major and minor basins indicated and the appropriate stream (Figure 39). Also included is the stream name.

Output

Name File output for network stations, counties, and municipalities, indicators, and basin names conform exactly to the information input.

Table 10. NAME FILE INPUT AND OUTPUT FORMS AND REPORTS

Input

County or Municipality Name File Input

Network Name File Input

Indicator Name File Input

Basin Name File Input

Output

County and Municipality Listing

Water Quality Networks Listing

Indicator Listing

Basin Name Listing

Name File Listing Control Totals

Name File Error Listing

Latitude-Longitude Cross-Referenced to
Identification Code

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
SANITARY ENGINEERING

NAME FILE INPUT - COUNTY OR MUNICIPALITY

Figure 36

NOTE: NEN WILL BE CODED "000" WHEN COUNTY IS APPLICABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Water Quality Management
NAME FILE INPUT - NETWORK

Figure 37

<input checked="" type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> 2 <input type="checkbox"/> 3					NETWORK NO.	<input type="checkbox"/>										
1	2	3	4-7	8-22												
					STREAM DESCRIPTION											
<input type="checkbox"/>										23-47	ACTUAL LOC	TYPE	HS	REGION	FIELD OFFICE	MAP NUMBER
										48-52	53	54	55	56-60		
					N	A	C	D	2	3	4-7	8-22				
<input type="checkbox"/>										23-47	48-52	53	54	55	56-60	
					N	A	C	D	2	3	4-7	8-22				
<input type="checkbox"/>										23-47	48-52	53	54	55	56-60	
					N	A	C	D	2	3	4-7	8-22				
<input type="checkbox"/>										23-47	48-52	53	54	55	56-60	
					N	A	C	D	2	3	4-7	8-22				
<input type="checkbox"/>										23-47	48-52	53	54	55	56-60	
					N	A	C	D	2	3	4-7	8-22				
<input type="checkbox"/>										23-47	48-52	53	54	55	56-60	
					N	A	C	D	2	3	4-7	8-22				
<input type="checkbox"/>										23-47	48-52	53	54	55	56-60	

STATE OF CALIFORNIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
SANITARY ENGINEERING

Figure 38

NAME FILE INPUT - INDICATOR

N A C D 3
1 2 3

INDICATOR

4-8

NO DEC

9

INDICATOR NAME

10-56

N A C D 3
1 2 3

4-8

9

INDICATOR NAME

10-56

57-64

65-72

73-80

UNITS

LINE 3

N A C D 3
1 2 3

4-8

9

INDICATOR NAME

10-56

57-64

65-72

73-80

LINE 2

N A C D 3
1 2 3

4-8

9

INDICATOR NAME

10-56

57-64

65-72

73-80

LINE 1

III

DEPARTMENT OF HEALTH
SANITARY ENGINEERING

Figure 39

NAME FILE INPUT - BASIN

(CIRCLE ONE)				BASIN			BASIN NAME		
N	A	C	D	MAJ	MIN	STREAM			
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4					
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4			11-25		
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The File merely compiles and arranges the input data. Output examples for each are shown in Figures 40 through 43.

The error listing gives an identification of the input information and prints out the reason for rejection, while the Name File Control Totals Report (Figure 44) summarizes all subsystem transactions by appropriate category.

Latitude-longitude coordinates are cross-referenced to identification codes for facilities. Although this is not a part of the Name File, the purpose served is similar. This cross-referencing is used in support of all modules. Figure 45 shows printouts on a state-wide and regional basis.

Uses

As stated earlier, the principal use of the Name File is in support of all modules. Information is filed and accessed by programs included in each module as needed.

Figure 40

NMRRP6	COUNTY AND MUNICIPALITY LISTING			RUN DATE 11/30/73	PAGE 1
CJ MUN	ABRV	NAME	REGION	FIELD OFFICE	
01-000	NO ABBR	ADAMS COUNTY	3	4	
01-001	GTVSG	GETTYSBURG BORO	3	4	
01-002	LTLSTWN	LITTLESTOWN BORO	3	4	
01-003	MCSHRTSTN	MCSHERRYSTOWN BORO	3	4	
01-004	ARHTSTH	APPHTSTH BORO	3	4	
01-005	ARHTSVL	ARYNTSVILLE BORO	3	4	
01-006	BDRRSVL	BENDERSVILLE BORO	3	4	
01-007	BRK T	BIRKICK TWP.	3	4	
01-008	BDGIRVL	BIGLERVILLE BORO	3	4	
01-009	BLTR T	BUTLER TWP.	3	4	
01-010	CHNGL T	CHENAGA TWP.	3	4	
01-011	CLLLE T	CUMBERLAND TWP.	3	4	
01-012	EGLBL	EAST BERLIN BORO	3	4	
01-013	FAIRFLD	FAIRFIELD BORO	3	4	
01-014	FELKA T	FRANKLIN TWP.	3	4	
01-015	FRDN T	FERFUM TWP.	3	4	
01-016	GRHMY T	GERMANY TWP.	3	4	
01-017	HMTLN T	HAMILTON TWP.	3	4	
01-018	HMLTN T	HAMILTONIAN TWP.	3	4	
01-019	HGHLD T	HIGHLAND TWP.	3	4	
01-020	HGTGN T	HUNTINGTON TWP.	3	4	
01-021	LTHR T	LATHMORE TWP.	3	4	
01-022	LRHTY T	LIRETY TWP.	3	4	
01-023	MNLN T	MENALLEN TWP.	3	4	
01-024	MT JY T	MT JOY TWP.	3	4	
01-025	MT PLS T	MT PLEASANT TWP.	3	4	
01-026	NEW OXF	NEW OXFORD BORO	3	4	
01-027	OXFD T	OXFORD TWP.	3	4	
01-028	RDNG T	READING TWP.	3	4	
01-029	STRHN T	STRAHAN TWP.	3	4	
01-030	TYRN T	TYROHE TWP.	3	4	
01-031	UNVN T	UNION TWP.	3	4	
01-032	YURK SPS	YORK SPRINGS BORO	3	4	
01-033	BUNNIVLL	BUNNIAUVILLE BORO	3	4	
02-000	NU ABBR	ALLEHENY COUNTY	5	6	
02-001	PGH	PITTSBURGH	5	6	
02-111	PN HLS T	PENN HILLS TWP.	5	6	
02-112	ICKSPURT	MCKEESPORT	5	6	
02-113	MT LBB T	MT LIBANON TWP.	5	6	
02-114	ROSS T	ROSS TWP.	5	6	
02-115	W MFLM	WEST MIFFLIN BORO	5	6	
02-115	WLKHSBG	WILKINSBURG BORO	5	6	
02-117	BALDWIN	BALDWIN BORO	5	6	
02-118	BELLEVUE	BELLEVUE BORO	5	6	
02-119	BETHEL	BETHEL PARK BORO	5	6	
02-120	BRAODUCK	BRAODUCK BORO	5	6	
02-121	BRTHND	BRENTWOOD BORO	5	6	
02-122	CARNEGIE	CARNEGIE BORO	5	6	
02-123	CSTL SHN	Castle Shannon BORO	5	6	
02-124	CLAIRTON	CLAIRTON	5	6	
02-125	DORMCHT	DORMONT BORO	5	6	
02-126	DUQUESNE	DUQUESNE	5	6	
02-127	HARSH T	HARRISON TWP.	5	6	
02-128	MCKLES RKS	MCKEES ROCKS BORO	5	6	
02-129	MUNRSEVL	MUNROEVILLE BORO	5	6	
02-130	MUNHALL	MUNHALL BORO	5	6	

Figure 40 (continued)

NMRP20	COUNTY AND MUNICIPALITY LISTING		RUN DATE 11/30/73	PAGE 2
CD MUN	ABRV	NAME	REGION	FIELD OFFICE
02-131	ND BROCK	NORTH BRADDOCK BORO	5	6
02-132	N VRSL T	NORTH VERSAILLES TWP.	5	6
02-133	PLUM	PLUM BORO	5	6
02-134	SCT T	SCOTT TWP.	5	6
02-135	SHALER T	SHALER TWP.	5	6
02-136	STONE T	STONE TWP.	5	6
02-137	SWSVL	SWISSVALE BORO	5	6
02-138	TRTL CRK	TURTLE CREEK BORO	5	6
02-139	WHITEHALL	WHITEHALL BORO	5	6
02-801	ASPNWL	ASPINWALL BORO	5	6
02-802	AVALON	AVALON BORO	5	6
02-803	BLOWN T	BALDWIN TWP.	5	6
02-804	BLN AVON	BLN AVON BORO	5	6
02-805	BRKNGRDG	BRACKENRIDGE BORO	5	6
02-806	BROGYLE	BRIDGEVILLE BORO	5	6
02-807	CHESKICK	CHESWICK BORO	5	6
02-808	CIRCHL	CHURCHILL BORO	5	6
02-809	CIRACPLS	COPAQUILIS TWP.	5	6
02-810	CRAFTIN	CRAFTON BORO	5	6
02-811	CYSNT T	CRESCEANT TWP.	5	6
02-812	DRVSAG	DRAVENSBURG BORO	5	6
02-813	E DEER T	EAST DEER TWP.	5	6
02-814	E MCKPT	EAST MCKEESEY-INT BORO	5	6
02-815	E PGH	EAST PITTSBURGH BORO	5	6
02-816	EDGEWOOD	EDGEWOOD BORO	5	6
02-817	ELZATH	ELIZABETH BORO	5	6
02-818	EMSNORTH	EMSNORTH BORO	5	6
02-819	ETNA	ETNA BORO	5	6
02-820	FRT HLS	FOREST HILLS BORO	5	6
02-821	FUX CHPL	FUX CHAPEL BORO	5	6
02-822	GLSPERT	GLASSPORT BORO	5	6
02-823	GRNTREE	GREEN TREE BORO	5	6
02-824	HNSTEAD	HOMESTEAD BORO	5	6
02-825	INGRAM	INGRAM BORO	5	6
02-826	JEFFERSON	JEFFERSON BORO	5	6
02-827	KADY T	KENNEDY TWP.	5	6
02-828	LIGERTY	LIGERTY BORO	5	6
02-829	MCHMILD P	MCMHAILD BORO #PART 6380	5	6
02-830	MILLEVALE	MILLEVALE BORO	5	6
02-831	MT OLVR	MT OLIVER BORO	5	6
02-832	DAKMENT	DAKMENT BORO	5	6
02-833	OHARA T	OHARA TWP.	5	6
02-834	PITCAIRN	PITCAIRN BORO	5	6
02-835	PLST HLS	PLEASANT HILLS BORO	5	6
02-836	PTRT VUE	PORT VIE BORO	5	6
02-837	RANKIN	RANKIN BORO	5	6
02-838	RSRV T	RESERVE TWP.	5	6
02-839	SAKEY	SEICKLEY BORO	5	6
02-840	SHRPSBG	SHARPSBURG BORO	5	6
02-841	SPRINGDL	SPRINGDALE BORO	5	6
02-842	TAREKTUM	TARENTUM BORO	5	6
02-843	TRFD PT	TRAFFORD BORO #PART 6581	5	6
02-844	VERINA	VERINA BORO	5	6
02-845	W HNSTD	WEST HOMESTEAD BORO	5	6
02-846	W VIEW	WEST VIEW BORO	5	6
02-847	WHIT EAK	WHITE OAK BORO	5	6

Figure 41

(2nd)

WATER QUALITY NETWORKS				RUN DATE 08/15/73				PAGE 1	
NETWORK ID CODE	DESCRIPTION	STREAM	TYPE	REGION	FIELD OFFICE	LAT	LNG	MAP NO.	
09-629-0-01-00-101	TRENTON AV BR AT MORRSVL	DELAWARE RIVER	1	1	1	4013090-07446420		08241	
09-942-0-01-00-102	PR212 AT RIEGLESVILLE NJ	DELAWARE RIVER	1	1	1	4033300-07511280		00233	
52-977-0-01-00-103	LS6 & 209 BR AT PRT JERYS	DELAWARE RIVER	1	2	2	4122140-07441520		03253	
54-901-0-01-00-104	PR191 BR IN BUCKINGHM TWP	DELAWARE RIVER	1	2	2	4152040-07512210		01233	
15-911-0-01-00-105	PC RR BR IN BURLINGTON TWP	BRANDYWINE CRK	2	1	1	3952390-07575350		07212	
15-914-0-01-00-106	PR242 BR AT YAMASSET VLG	BS BRANDYWINE C	2	1	1	3955340-07539470		09214	
15-914-0-01-00-107	PR842 BR NEAR YMASSET VLG	ED BRANDYWINE C	1	1	1	3955310-07538550		09214	
15-804-0-01-00-108	LR15141 BR IN DOVINGTON TWN	ED BRANDYWINE C	1	1	1	4007050-07562310		08213	
23-005-0-01-00-109	CRGTR & CR RD AT CHESTER	CHESTER CREEK	1	1	1	3951510-07523510		07223	
51-371-0-01-00-110	FALLS BR IN PHILADELPHIA	SCHUYLKILL RIVR	9	1	1	4001300-07511120		08233	
45-005-0-01-00-111	FAEVER ST BR AT POTTSVTL	SCHUYLKILL RIVR	1	1	1	4014300-07539750		08214	
03-321-0-01-00-112	BIGGEMEN ST BR AT READING	SCHUYLKILL RIVR	1	2	3	4117010-07556700		07203	
03-953-0-01-00-113	TR551 BRIDGE AT SERAE	SCHUYLKILL RIVR	2	2	3	4031210-07558550		06203	
54-071-0-01-00-114	BR BTWN POTTSVL-PALO ALTO	SCHUYLKILL RIVR	2	3	3	4041010-07511120		06194	
51-001-0-01-00-115	BELLS MILL BR IN PHILA	MISSAHICKON CR	2	1	1	4004450-07513320		08233	
45-743-0-01-00-116	LR46215 BR AT GRATERFORD	PERKIOMEN CREEK	2	1	1	4213440-07527570		08224	
05-773-0-01-00-117	LR05239 BR IN BERN TWP	TULPEHOCKEN CR	2	2	3	4022080-07538460		07203	
06-564-0-01-00-118	NR READING KW POWER PLANT	HAZELN GREEK	9	2	3	4025780-07556400		07204	
54-953-0-01-00-119	PR443 BR IN WALKER TWP	L SCHUYLKILL RV	2	3	3	4045150-07556480		06203	
54-920-0-01-00-120	PR153 BRIDGE AT CRESSONA	WB SCHUYLKILL R	2	3	3	4030300-07611310		06194	
09-927-0-01-00-121	FR213 BR AT LANGHORNE	NESHAMINY CREEK	2	1	1	4010260-07457250		09244	
09-913-0-01-00-122	CR E OF PR413 & 11 JCT	TOPICKA CREEK	2	1	1	4226010-07507710		07221	
45-002-0-01-00-123	THRD ST BR IN EASTON	LEHIGH RIVER	1	2	3	4041120-07512220		08234	
45-001-0-01-00-124	PR191 BR AT BETHELHEM	LEHIGH RIVER	1	2	3	4035520-07523550		06223	
45-934-0-01-00-125	BR BT SLEYTON & WALNT PT	LEHIGH RIVER	2	2	3	404540-07536110		05212	
45-919-0-01-00-126	PR115 BR AT STOCKARTSVLL	LEHIGH RIVER	1	2	2	4107490-07537330		04211	
45-001-0-01-00-127	LR49210 PR AT BETHELHEM	SAUCON CREEK	2	3	3	4037110-07520110		06222	
45-001-0-01-00-128	W LEHIGH ST BR IN BETHLHM	MOUDACY CREEK	2	3	3	4037010-07522520		06223	
39-919-0-01-00-129	LR22016 BR IN S WHITWLL T	L LEHIGH CREEK	2	2	3	4034560-07529700		06223	
39-001-0-01-00-130	PR145 BR AT ALLENTON	JORDAN CREEK	2	2	3	4037230-07528550		05223	
13-024-0-01-00-131	TR372 PR AT PALHERTON	AQUASHICOLA CR	2	2	3	4047340-07524450		05212	
13-919-0-01-00-132	TR163 SPUR BR AT PAKRYVLE	POHOPUCO CREEK	2	2	3	4043570-07540210		05213	
13-917-0-01-00-133	BLV PR219 IN MAUCH CHUNK T	NESQUEHONING CR	1	2	3	4052210-07534540		05202	
13-815-0-01-00-134	BR BR AT WEATHERLY	BLACK CREEK	2	3	3	4055520-07549200		05201	
45-002-0-01-00-135	PR011 BR AT EASTON	BUSHKILL CREEK	2	2	3	4041450-07512150		06234	
45-922-0-01-00-136	KA BR AT MTH L HT BETHL T	MARTINS CREEK	2	3	3	4044320-07510260		05233	
45-917-0-01-00-137	LR45051 NR MINISINK HILLS	BRODHEAD CREEK	2	2	2	4059550-07508350		05234	
45-918-0-01-00-138	PR191 BR NR ANALCMINK	BRODHEAD CREEK	2	2	2	4102270-07512450		04233	
45-910-0-01-00-139	TR523 BR NR SHOE MAKERS	BUSHKILL CREEK	2	2	2	4105170-07502170		04232	
45-918-0-01-00-140	PARK ST BR IN WHITE HILLS	LACKAWAXEN RIVR	2	2	2	4131300-07511200		02233	
52-974-0-01-00-141	TR353 BR IN GREENE TWP	WALLENPAUPACK C	9	2	2	4120100-07520250		03222	
45-919-0-01-00-142	PR640 BR AT BLAKESLEE	TUTYHANNA CREEK	2	2	2	4105150-07513820		04212	
51-001-0-01-00-143	STRAWBERRY BR AT PHILADEL	SCHUYLKILL RIVR	1	1	1	3959420-07511400		09234	
06-961-0-01-00-144	TR501 BR IN SPRING TWP	CACODIUS CREEK	2	3	3	4021590-07556410		07203	
45-924-0-01-00-145	LR46001 BR IN L SAUCON T	SAUCON CREEK	2	3	3	4033280-07521440		06222	
48-675-0-01-00-145	OFF PR191 AT ST ANN SHRIN	MONOCACY CREEK	2	3	3	4041130-07520260		05221	
52-903-0-01-00-147	AT MOUTH IN LACKAWAXEN T	LACKAWAXEN RIVR	2	2	2	4121120-07455910		03244	
48-922-0-01-00-148	PC KA BR AT PPSL PWR PLNT	DELWARE RIVER	1	3	3	4047220-07506570		05232	
15-934-0-01-00-149	LR15016 BR IN LYON BRVN T	WHITE CLAY CR	1	1	1	3944640-07546120		10201	
15-933-0-01-00-150	LR15037 BR IN KENNEDY TWP	RED CLAY CREEK	2	1	1	3943000-07541310		09213	
15-911-0-01-00-151	SAVE AS STATION #105	BRANDYWINE CR	9	1	1	3957090-07535501		09212	
15-914-0-01-00-152	JEFFERIES BR IN E PROPD T	ED BRANDYWINE C	2	1	1	3955200-07533130		09214	
15-914-0-01-00-153	SAVE AS STATION #106	ED BRANDYWINE C	9	1	1	3955140-07539471		09214	
15-922-0-01-00-154	WILSON RD BR TROYEFERIN T	VALLEY CREEK	2	1	1	4004530-07527250		06223	
15-924-0-01-00-155	BR NEAR WILSTERS CORNER	FRENCH CREEK	2	1	1	4009050-07536600		08211	
15-929-0-01-00-156	LR15016 BR IN FRANKLIN T	BIG ELK CREEK	2	1	1	3943470-07546120		10201	

Figure 41 (continued)

WATER-QUALITY NETWORKS				RUN DATE: 06/19/73			PAGE 2	
NETWORK ID CODE	DESCRIPTION	STREAM	TYPE	REGION	FIELD OFFICE	LAT	LONG	MAP NO.
19-951-C-01-00-157	CREEK RD BR IN THURNEY T	WB CHESTER CR	2	1	X	3955450-07532000		09224
23-617-0-01-00-158	NR WATUL & COELSTN RD IN	RIDLEY CREEK	2	1	1	3952280-07522500		09223
23-003-0-01-00-159	AT GARRET TR IN W DARBY T	DARBY CREEK	2	1	1	3955840-07518000		09221
46-951-0-01-00-160	MT PLEASANT RD BR YITFN T	WISSAHICKON CR	2	1	1	4006200-07513500		09224
46-943-U-01-00-161	SAME AS STATION #116	PERKIOMEN CREEK	9	1	1	4014400-07327071		08224
45-938-C-01-00-162	GATES RD BR L SALFORD T	ED PERKIOMEN CR	2	1	1	4015250-07552200		07223
45-937-0-01-00-163	ARCOLA RD BR L PROVIDENC T	SKIPPACK CREEK	2	1	1	4006700-07526460		08224
51-001-0-01-00-164	CASTER AV BR IN PHILADEL	FRANKFORD CREEK	2	1	1	4001000-07326410		04222
51-001-0-01-00-165	FRANKFORD AV BR IN PHILA	PEWNEYPACK CREEK	2	1	1	4002350-07501150		08222
46-933-C-01-00-166	PR63 BR IN L MCRELAND TWP	PEWNEYPACK CREEK	2	1	1	4007140-07504210		09227
09-673-C-01-00-167	ALM HOUSE RD BR COYLESTAN	NESHAMINY CREEK	2	1	1	4017120-07329500		07223
04-927-0-01-00-168	BR N MAPLE AV BR MIDLTN T	NESHAMINY CREEK	9	1	1	4010250-07457751		08224
09-937-0-01-00-169	WALTON RD BR NORTHAMPTN T	L NESHAMINY CR	2	1	1	4014240-07503150		08224
09-915-C-01-00-170	SAME AS STATION #122	TOMICKIN CREEK	9	1	2	4025010-07507011		07231
09-923-C-01-00-171	COVDO BR RD FR MAYCUCK T	TOMICKIN CREEK	2	1	1	4027120-07516460		07221
23-617-0-01-00-172	CUTTY MILLS RD BR CHSTR T	CHESTER CREEK	2	1	1	3952230-07524310		06223
51-071-0-01-00-173	SAME AS STATION #115	WISSAHICKON CR	9	1	1	4004450-07513431		09223
36-733-U-01-00-174	REC STATION AT MARIETTA	SUSQUEHANNA R	9	3	3	4003120-0761520		08172
22-001-0-01-00-175	WALNUT ST BR IN HARRISBRG	SUSQUEHANNA R	1	3	3	4015270-07653120		07163
49-003-0-01-00-176	RAINGRD ST BR IN SUNBURY	SUSQUEHANNA R	1	4	3	4051150-07648210		05152
36-940-0-01-00-177	PR324 IN HARTIC TWP	PEQUEA CREEK	2	3	3	3953370-07621340		09181
36-733-C-0-01-00-178	RELIO LANCASTER WATER WRK	CONESTOGA CREEK	2	3	3	4003000-07515190		03182
36-733-C-0-01-00-179	PA441 BR IN E PUNEGAL TWP	CHICKIES CREEK	2	3	3	4003190-07621230		08172
67-936-C-0-01-00-180	BR AT LR66821 ST2639 INTR	COTTERUS CREEK	2	3	4	4003270-07642370		02173
67-946-C-0-01-00-181	TR488 BR AT MARTIN	WB CODORUS CR	2	4	3	3953140-07650090		09161
67-003-C-0-01-00-182	AT YORK WATER CO PUMP STA	SB CODORUS CR	2	3	4	3955140-07644570		09174
67-917-C-0-01-00-183	PR151 BR IN E MANCHESTR T	W CONEYAGO CR	2	3	4	4004820-07643070		08173
22-012-0-01-00-184	PR441 BR AT MIDDLETON	SWATAKA CREEK	2	3	3	4711250-07543520		02174
47-919-C-0-01-00-185	XJ5111 BR IN FAIRVIEW TAP	YELLOW BRECHES	2	4	4	4013270-07551330		08161
21-915-C-0-01-00-186	TR574 BR IN MIDDLESEX TAP	COODORUIKET CR	2	3	4	4715340-07716110		07152
53-913-C-0-01-00-187	PA34 BR AT NEWPORT	JUVIATA RIVER	2	3	4	40228420-07707460		07151
31-923-C-0-01-00-188	LR31084 BR AT MAPLETON	JUNIATA RIVER	2	4	4	4023420-07756240		07124
31-821-C-0-01-00-189	TR4135 BR AT HUNTINGDON	JUNIATA RIVER	2	4	4	4029050-07601790		07111
31-940-C-0-01-00-190	PR34 BR AT SPRUCE CREEK B	L JUNIATA RIVER	2	4	4	4036330-07551110		06113
07-975-C-0-01-00-191	US220 BR IN ANTIS TAP	L JUNIATA RIVER	2	4	5	4037390-07617420		08102
07-694-C-0-01-00-192	PR350 BR AT TYRONE	S BALD EAGLE CR	2	4	5	4041400-07614190		06114
44-001-C-0-01-00-193	US522 BR AT LEVISTOWN	KISHACKWILL'S C	2	4	5	4035220-07733350		06132
31-913-C-0-01-00-194	PR944 BR IN CROWELL TWP	AUGHWICK CREEK	9	4	4	4012450-07755220		06124
31-920-C-0-01-00-195	BR AT TR430 & 431 INTERSC	RAYSTOWN BRANCH	9	4	4	4025350-07601470		07111
C5-913-C-0-01-00-196	PR913 BR NEAR SAXTON	RAYSTOWN BRANCH	2	4	4	4012570-07615560		06101
07-924-C-0-01-00-197	PC 32 BR IN KEDRUPRY TWP	FRANKSTOWN BR	2	5	5	4028340-07810590		07114
22-857-C-0-01-00-198	PA147 BR AT MILLERSBURG	WICOMISCO CREEK	2	3	3	4032140-07617790		05153
49-918-C-0-01-00-199	TR482 & 302 BR NR DALMATH	MARANTANGO CR	2	4	3	4035460-07654430		06163
49-913-C-0-01-00-200	PR147 BR IN JACKSON TWP	MAHANOY CREEK	1	4	5	4043340-07650160		06161
55-913-C-0-01-00-201	US11 E 15 BR IN PENN TWP	MIDDLE CREEK	2	5	5	4045270-07652110		05152
55-912-C-0-01-00-202	US11 E 15 BR IN MONKRE T	PEWNS CREEK	2	5	5	4043500-07651200		05162
49-927-C-0-01-00-203	REC STA IN SPAWCKIN TAP	SHAKEM CREEK	1	4	5	4048570-07635740		05172
33-933-C-0-01-00-204	TR561 BR IN "A" DS TWP	CONESTOGA CREEK	2	3	3	3957410-0762180		09181
36-940-C-0-01-00-205	PR372 BR AT HOLLYWOOD	SUSQUEHANNA R	1	2	2	3949310-07619240		09162
31-601-C-0-01-00-206	REC STA AT HUNTINGDON	STAMPING STONE C	9	4	4	4031250-07758150		06123
05-922-C-0-01-00-207	REC STA AT BELDEN	DUNKING CREEK	9	4	4	4004150-07829340		08163
03-929-C-0-01-00-208	REC STA AT GAPSVILLE	BRUSH CREEK	9	4	4	3957250-07515150		09101
31-924-C-0-01-00-209	REC STA AT MACKLESBURG	GREAT TROUGH CR	9	4	4	4021000-07307500		07113
36-935-C-0-01-00-210	LR36009 BR IN LEAVOCK TWP	MILL CREEK	2	3	3	4007450-07609250		08193
33-922-C-0-01-00-211	LR36003 BR N AVNVILLE TAP	QUITTAHILLIA C	2	3	3	4021020-07626520		07172
21-926-C-0-01-00-212	AT MOUTH IN S MIDDLETON T	MOUNTAIN CREEK	2	4	4	4008410-07712430		08154

Figure 41 (continued)

NMRR20

INDICATOR LISTING

RUN DATE 11/30/773

PAGE 2

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12118
Upper Left Margin

CODE	ABBREVIATIONS	DEC LOC	DESCRIPTION
00064	DEPTH OF STREAM	MEAN(FT)	DEPTH OF STREAM, MEAN (FT)
00065	STREAM STAGE	FEET	STAGE, STREAM (FEET)
00066	DEPTH BOTSAMPL	FEET	DEPTH OF BOTTOM SAMPLE IN FEET (BELOW STREAMBED)
00067	TIDE STAGE	CODE	STAGE, TIDE (REFER TO APPENDIX FOR CODES)
00068	MAX SAMP DEPTH	FEET	DEPTH, MAXIMUM, OF SAMPLE (FEET)
00069	SWL CODE		SEA WAVES (0=NONE; 1=0-3"; 2=4-20"; 3=21-48"; 4=5-8")
00070	TURB JKSN	JTU	TURBIDITY, (JACKSON CANDLE UNITS)
00074	TURB TRANS	X	TURBIDITY, TRANSMISSOMETER, PERCENT TRANSMISSION
00075	TURB HLLGE	PPM SIN2	TURBIDITY, HELIGE (PPM AS SILICON DIOXIDE)
00076	TURB TRITOMTR	HACH FTU	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNITS)
00077	TRANSP SECCHI	INCHES	TRANSPARENCY, SECCHI DISC (INCHES)
00079	COLOR FÖRKL-ULE	SCALE	COLOR, WATER (FÖRKL-ULE SCALE)
00080	COLOR PT-CO	UNITS	COLOR (PLATINUM-COBALT UNITS)
00081	APP COLOR	PT-CO	COLOR, APPARENT (UNFILTERED SAMPLE) PLAT-COB UNITS
00085	ODOR THRSN NO RM.	TEMP	ODOR (THRESHOLD NUMBER AT ROOM TEMPERATURE)
00086	ODOR THRSN NO AT 60	AT 60C	ODOR (THRESHOLD NUMBER AT 60 DEG C)
00087	ODOR THRSN NO AT 40C	AT 40C	ODOR (THRESHOLD NUMBER AT 40 DEG C)
00090	REDox ORP MV		OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)
00094	CONDUCTVY FIELD	MICROMHDS	CONDUCTIVITY, FIELD (MICROMHDS)
00095	CONDUCTVY AT 25C	MICROMHDS	CONDUCTIVITY (MICROMHDS AT 25 DEG C)
00096	SALINITY AT 25C	MG/ML	SALINITY AT 25 DEGREES C -MG/ML
00110	SLUDGED AREA	SQ FT	SLUDGE BED (AREA IN SQUARE FEET)
00112	SLUDGED AV DEPTH	FT	SLUDGE BED (AVERAGE DEPTH IN FEET)
00115	SAMPLE TREATMENT	METHOD	SAMPLE TREATMENT CONF (1=RAW,2=TREATED)
00290	DO UPTAK LIGHT BOTT	MG/L	DISSOLVED OXYGEN UPTAKE, LIGHT BOTTLE, IN 24HR-MG/L
00292	DO UPTAK DARK BOTT	MG/L	DISSOLVED OXYGEN UPTAKE, DARK BOTTLE, IN 24HR-MG/L
00295	DO PROBE	MG/L	OXYGEN, DISSOLVED (MG/L)
00300	DO SATUR	PERCFMT	OXYGEN, DISSOLVED (MG/L)
00301	DO		OXYGEN, DISSOLVED (PERCENT OF SATURATION)
00302	BOD MG/L		OXYGEN, IMMEDIATE DEMAND (MG/L)
00303	BOD 1 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 1 DAY - 20DEG C)
00304	BOD 2 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 2 DAY - 20DEG C)
00305	BOD 3 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 3 DAY - 20DEG C)
00306	BOD 4 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 4 DAY - 20DEG C)
00310	BOD 5 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 5 DAY - 20DEG C)
00311	DISS BOD 5 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND, DISSOLVED 5 DAY (MG/L)
00312	BOD 6 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 6 DAY - 20DEG C)
00315	BOD 7 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 7 DAY - 20DEG C)
00316	BOD 8 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 8 DAY - 20DEG C)
00317	BOD 9 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 9 DAY - 20DEG C)
00320	BOD LLT FRST	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L ULT. FIRST STAGE)
00321	BOD LLT 2ND	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L ULT-SECOND STAGE)
00322	BOD 10 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 10 DAY-20 DEG C)
00323	BOD 15 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 15 DAY-20 DEG C)
00324	BOD 20 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 20 DAY-20 DEG C)
00325	DOXY K1 BASE E PER DAY		DOXYGENATION CONSTANT K1 TO BASE E (PER DAY)
00326	BOD 28 DAY	MG/L	BIOCHEMICAL OXYGEN DEMAND (MG/L, 28 DAY-20 DEG C)
00330	REDOX K2 BASE E PER DAY		REDOXYGENATION CONSTANT K2 TO BASE E (PER DAY)
00335	COD LUKELEVEL	MG/L	CHEMICAL OXYGEN DEMAND, .025N K2CR2O7 (MG/L)
00339	COD WID DRY WGT	MG/KG	CHEMICAL OXYGEN DEMAND, BOT. DEP. (MG/KG DRY WGT)
00340	COD HI LEVEL	MG/L	CHEMICAL OXYGEN DEMAND, .25N K2CR2O7 (MG/L)
00341	DISS COD	MG/L	CHEMICAL OXYGEN DEMAND, DISS, .25N K2CR2O7 (MG/L)
00342	SEE COD	MG/L	CHEMICAL OXYGEN DEMAND, SALINE, .25N K2CR2O7 (MG/L)
00343	OXY DEM TOTAL	MG/L	TOTAL OXYGEN DEMAND (MG/L)
00344	OXY DEM TOTAL	MG/L	TOTAL OXYGEN DEMAND (MG/L) COMBUSTION METHOD

Figure 42

NMRR70	INDICATOR LISTING			RUN DATE 11/30/73	PAGE 1
CODE	ABBREVIATIONS	DEC LOC	DESCRIPTION		1
00001	HSAMPLOC FT FROM RT BANK	XXXXXX.X	X-SEC. LOC., HORIZ (FT. FROM R BANK LOOK UPSTR.)		2
00002	HSAMPLOC % FROM RT BANK	XXXXXX.X	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)		3
00003	VSAMPLOC DEPTH FEET	XXXXXX.	SAMPLING STATION LOCATION, VERTICAL (FEET)		4
00004	STREAM WIDTH FEET	XXXXXX.	STREAM WIDTH (FEET)		5
00005	VSAMPLOC DEPTH % OF TOT	XXXXXX.	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)		6
00006	DISTANCE FR X MILES	XXX.XXX	DISTANCE FROM LOCATION IN X MILES		7
00007	DISTANCE FR Y MILES	XXX.XXX	DISTANCE FROM LOCATION IN Y MILES		8
00008	LAR IDENT. NUMBER	XXXXXX.	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE		9
00009	XSAMPLOC FT FROM LF BANK	XXXXXX.X	X-SEC. LOC.(FT FROM LEFT BANK LOOKING DOWNSTRM)		10
00010	WATER TEMP CENT	XXXXXX.X	TEMPERATURE, WATER (DEGREES CENTIGRADE)		11
00011	WATER TEMP FAHREN	XXXXXX.X	TEMPERATURE, WATER (DEGREES FAHRENHEIT)		12
00012	EVAP 46 IN PAN DEG C	XXXXXX.X	EVAPORATION TEMPERATURE (46 INCH PAN) DEG CENT		13
00013	EVAP 24 IN PAN DEG C	XXXXXX.X	EVAPORATION TEMPERATURE (24 INCH PAN) DEG CENT		14
00014	WET BULB TEMP DEG CENT	XXXXXX.X	WET BULB TEMPERATURE (DEGREES CENTIGRADE)		15
00015	TERMAL MILLION BTU/HOUR	XXXXXX.	TERMAL DISCHARGE MILLIONS OF BTUS PER HOUR		16
00016	DT FROM NATURAL CENT	XXXXXX.X	TEMP. DIFFERENCE BETWEEN SAMPLE AND UPSTREAM PT.		17
00020	AIR TEMP CENT	XXXXXX.X	TEMPERATURE, AIR (DEGREES CENTIGRADE)		18
00021	AIR TEMP FAHREN	XXXXXX.X	TEMPERATURE, AIR (DEGREES FAHRENHEIT)		19
00023	WEIGHT POUNDS	XXXXXX.XX	SAMPLE WEIGHT IN POUNDS		20
00024	LENGTH INCHES	XXXXXX.XX	SAMPLE LENGTH IN INCHES		21
00025	BAROMTRC PRESSURE MM OF HG	XXXXXX.	BAROMETRIC PRESSURE (MM OF HG)		22
00027	COLLECT AGENCY CODE	XXXXXX.	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND		23
00028	ANALYZE AGENCY CODE	XXXXXX.	CODE NO FOR AGENCY ANALYSING SAMPLE (SEE APPEND)		24
00029	FIDN TIN'IT NUMBER	XXXXXX.	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE		25
00030	TINC LT SURF C/SOCM/D	XXXXXX.	LIGHT, INCIDENT, SUNLIGHT RADIATION INTENSITY		26
00031	TINC LT REMAINING PERCENT	XXXXXX.X	LIGHT, INCIDENT, PERCENT REMAINING AT CERTAIN DEPTH		27
00032	CLOUD COVER PERCENT	XXXXXX.	CLOUD CNVFR (PERCENT)		28
00033	WEATHER CODE	XXXXXX.	WEATHER CODE FOR OCEAN-OBSERV. (WMO CODE 4677)		29
00034	DEPTH-FT 1% LIGHT REMAINS	XXXXXX.X	DEPTH IN FEET AT WHICH 1% SURFACE LIGHT REMAINS		30
00035	WIND VELOCITY MPH	XXXXXX.X	WIND VELOCITY (MILES PER HOUR)		31
00036	WIND DIR.FROM NORTH-0	XXXXXX.	WIND DIRECTION IN DEGREES FROM TRUE N (CLOCKWISE)		32
00037	WIND FORCE BEAUFORT	XXXXXX.	WIND FORCE (BEAUFORT UNITS)		33
00038	WIND DIRECT WMO CODE	XXXXXX.	WIND DIRECTION (WMO CODES 0885 + 0887)		34
00039	WIND DIRECT AZIMUTH	XXXXXX.	WIND DIRECTIONS, AZIMUTH		35
00041	WEATHER WMO CODE 4501	XXXXXX.	WEATHER (WMO CODE 4501)		36
00042	ALTITUDE FEET AS MSE	XXXXXX.	ALTITUDE IN FEET ABOVE MEAN SEA LEVEL		37
00043	CLOUD TYPE WMO CODE	XXXXXX.	CLOUD TYPE (WMO CODE 0500)		38
00044	CLOUD AMOUNT WMO CODE	XXXXXX.	CLOUD AMOUNT (WMO CODE 2700)		39
00045	PRECIP TOT DAY IN	XXXXXX.XX	PRECIPITATION, TOTAL (INCHES PER DAY)		40
00047	TOT PART PRESSURE MM HG	XXXXXX.X	TOTAL PARTIAL PRESSURE DISSOLVED GASES (MM HG)		41
00048	TOT PART PRESSURE % SAT	XXXXXX.X	TOTAL PARTIAL PRESSURE DISSOLVED GASES (% SAT)		42
00049	SURFACE AREA SQ. MI.	XXXXXX.XX	SURFACE AREA IN SQUARE MILES		43
00050	FVP TOT DAY IN	XXXXXX.XX	EVAPORATION, TOTAL (INCHES PER DAY)		44
00051	SURFACE AREA SQ-FT	XXXXXX.	SURFACE AREA IN SQUARE FEET		45
00052	RELATIVE HUMIDITY PERCENT	XXXXXX.X	HUMIDITY, RELATIVE (PERCENT)		46
00053	SURFACE AREA ACRES	XXXXXX.X	SURFACE AREA, ACRES		47
00054	RESRVR STORGE AC-FT	XXXXXX.	RESRVR STORGE - ACRE FEET		48
00055	STREAM VELOCITY FT/SEC	XXXXXX.X	STREAM VELOCITY (FEET PER SECOND)		49
00056	FLW RATE GPD	XXXXXX.	FLOW RATE (GALLONS PER DAY)		50
00057	IND DF FLOW CHECKED	XXXXXX.	FLOW, INDICATES IT HAS BEEN CHECKED		51
00058	FLW RATE GPM	XXXXXX.XX	FLOW RATE (GALLONS PER MINUTE)		52
00059	FLW RATE INST-GPM	XXXXXX.XX	FLOW, STREAM, MEAN DAILY (CUBIC FEET PER SEC.)		53
00060	STREAM FLOW INST-CFS	XXXXXX.	FLOW, STREAM, INSTANTANEOUS (CUBIC FEET PER SEC.)		54
00061	STREAM FLOW ELE IN FEET	XXXXXX.XX	ELEVATION, RESERVOIR SURFACE WATER IN FEET		55
00062	WATER SUPP ELE IN FEET	XXXXXX.XX	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION		56
00063	NO. OF SAMPLING POINTS	XXXXXX.			

Figure 43

NRSS20

BASIN NAME LISTING

RUN DATE 06/07/73

PAGE 1

MAJOR BASIN	MINOR BASIN	STREAM NO.	STREAM NAME
01	09	000	NORTHEAST
01	28	000	GENESEE RIVER
01	28	001	GENESEE RIVER
02		000	NORTH ATLANTIC
02	03	000	DELA RIV ZONE 1
02	03	001	DELA RIV ZONE 1
02	04	000	DELA RIV LBRICH
02	04	001	DELA RIV LFRICH
02	05	000	DEL R SCHYLVKIL
02	05	001	DEL R SCHYLVKIL
02	06	000	DELA RIV ZONE 2
02	06	001	DELA RIV ZONE 2
02	07	000	DELA RIV ZONE 3
02	07	001	DELA RIV ZONE 3
02	08	000	DELA RIV ZONE 4
02	08	001	DELA RIV ZONE 4
02	12	000	SUSQUEHAN A RIV
02	12	001	SUSQUEHAN B RIV
02	13	000	UPPER CHESAPEAK
02	13	001	UPPER CHESAPEAK
02	14	000	POTOMAC RIVER
02	14	001	POTOMAC RIVER
05	00	000	OHIO RIVER
05	01	000	ALLEGHENY
05	01	001	ALLEGHENY
05	02	000	NJ MONGANGLA
05	02	001	NJ MONGANGLA
05	03	000	SEASER
05	03	001	SEASER
05	21	000	OJIO RIVER STEM
05	21	001	OJIO RIVER STEM
06	00	000	LAKE ERIE
06	06	000	L ERIE CUYAH-NY
06	06	001	L ERIE CUYAH-NY

Figure 44

KPRAZB

NAME FILE LISTING CONTROL TOTAL

RUN DATE 06/07/73

PAGE 1

TOTAL CO-HUN	RECORDS	02632
TOTAL NETWORK	RECORDS	00307
TOTAL INDICATOR	RECORDS	01709
TOTAL FASIN	RECORDS	00034
TOTAL SER NAME FILE READ	00000	
TOTAL TAPE RECORDS READ	04702	
TOTAL TAPE RECORDS WRITE	00000	
TOTAL NAME FILE IDX WRITE	04702	
TOTAL NAME FILE SEQ WRITE	04703	

Figure 45

COMMONWEALTH OF PENNSYLVANIA
DEPT. OF ENVIRONMENTAL RESOURCES

(Since last issue)

PAGE 1

LAT-LONG CROSS REFERENCED TO ID CODE STATE WIDE

DATE 06/25/7

L A T	L O N G	L A T	L O N G	L A T	L O N G	L A T	L O N G
61-910-0-01-00-827	285423.0-0414439.0	30-920-1-01-01-401	394317.0-0300343.0	67-912-1-01-02-201	394317.1-0752002.1		
67-912-1-01-02-402	394317.2-0752002.2	28-922-1-01-02-601	394319.0-0772323.0	28-922-3-03-01-001	394322.0-0772751.0		
28-922-3-03-01-002	394322.1-0772751.0	67-955-0-01-00-254	394323.0-0763046.0	67-912-1-01-02-703	394326.0-071034.0		
67-912-1-01-02-702	394327.1-0761944.1	67-912-1-01-02-403	394327.2-0761934.2	67-912-1-01-02-701	394327.3-0761934.3		
67-912-1-01-02-501	394332.0-0761937.0	30-920-1-01-01-401	394332.0-0761937.5	67-912-1-01-02-601	394333.0-0761935.0		
30-923-0-01-01-100	394333.0-0801529.0	28-922-1-01-00-304	394334.0-0773533.0	36-934-5-01-01-012	394325.0-0762603.0		
26-934-5-01-01-010	394338.0-0761919.0	67-912-1-01-02-203	394340.1-0761921.1	67-921-0-01-02-100	394340.1-0762801.1		
67-912-1-01-02-401	394340.2-0761921.2	67-921-3-01-02-1-1	394340.2-076271.2	30-925-0-02-01-101	394340.7-0761346.3		
30-924-5-01-01-011	394343.0-0761922.0	28-922-3-04-01-301	394345.0-0761919.0	28-922-3-04-01-203	394346.0-0771616.0		
12-924-3-01-02-156	394347.0-0761914.0	30-920-1-01-00-304	394347.4-0761914.7	25-922-1-01-02-203	394347.4-0771465.1		
26-922-1-01-02-403	394348.2-0772349.2	30-920-1-01-02-301	394349.0-0772141.0	56-934-1-01-02-302	394350.0-0771740.0		
56-934-1-01-02-401	394351.0-0761743.0	56-904-1-01-02-303	394352.0-0761736.0	26-931-0-01-01-101	394353.0-0761736.0		
28-922-1-02-02-303	394354.0-0773015.0	26-931-0-01-01-012	394354.0-0765423.0	56-934-1-01-02-304	394355.0-0761735.0		
67-922-5-01-02-510	394355.0-0765427.0	56-944-1-01-02-303	394357.0-0791731.0	26-931-0-01-01-401	394357.0-0762186.0		
26-931-0-01-00-725	394357.0-0765442.0	30-920-1-01-01-301	394357.0-0764101.0	67-920-1-01-02-301	394358.0-0762764.0		
56-934-1-01-02-201	394359.0-0764174.0	28-922-1-01-02-303	394360.0-0773120.0	36-924-3-01-01-001	394400.0-0761716.0		
67-920-3-01-01-001	394400.0-0762737.0	67-920-3-01-02-013	394400.0-0762735.0	67-943-7-01-02-101	394400.0-0764136.0		
67-920-3-01-01-002	394400.1-0762737.1	36-934-3-01-01-002	394400.2-0760736.2	28-922-1-02-00-203	394401.0-0773186.0		
30-920-7-01-01-100	394402.0-0801614.0	67-002-1-01-02-702	394403.0-0765735.0	28-922-1-02-00-202	394403.0-0772164.0		
66-920-5-0-00-300	394404.0-0761646.0	67-920-3-01-02-012	394406.0-0762735.0	01-822-1-01-02-205	394406.0-0770435.0		
67-924-5-01-02-010	394406.1-0764218.1	67-943-3-01-02-011	394407.2-0764102.0	01-822-1-01-02-200	394408.0-0770520.0		
21-922-1-02-02-001	394408.0-0772135.0	28-922-1-01-01-1-1	394408.0-0764104.0	56-919-1-02-01-100	394409.0-0770516.0		
67-922-1-01-02-008	394410.0-0765608.0	26-922-3-02-01-002	394411.0-072330.0	26-922-4-02-01-001	394411.4-0772330.0		
26-931-7-01-01-101	394411.5-0765415.0	67-950-5-01-02-010	394412.0-0761207.0	30-920-6-01-01-100	394412.0-0800401.0		
01-922-6-01-02-100	394413.1-0762647.1	01-802-1-01-02-201	394413.1-0776456.1	01-922-8-01-02-101	394413.2-0752647.2		
01-922-1-01-02-401	394413.2-0777450.2	28-922-7-01-02-201	394414.0-0773516.0	30-920-8-01-01-101	394414.0-0770512.0		
01-922-1-01-02-202	394415.0-0777446.0	28-922-1-02-01-301	394415.1-0772233.1	28-922-1-02-02-201	394415.2-0772235.2		
67-943-1-02-02-012	394416.0-076427.0	26-922-1-02-2-2-1	394416.0-0772158.0	26-922-1-01-01-001	394416.1-077224.0		
67-943-0-02-02-010	394416.1-0764246.1	67-943-3-02-01-1	394416.2-0754208.2	67-943-1-01-02-001	394417.0-0764423.0		
01-802-7-01-02-202	394417.0-0777452.0	56-904-1-01-02-301	394418.0-0791926.0	28-922-3-05-01-002	394420.0-0772850.0		
26-922-1-02-02-304	394420.0-0772936.0	26-922-3-09-01-001	394420.4-0772850.0	67-943-1-01-02-702	394421.0-0754136.0		
01-822-7-01-02-500	394421.0-0777453.0	15-825-7-01-01-1-1	394422.5-0755922.0	15-826-7-01-01-100	394422.5-0755922.1		
15-825-7-01-01-2-00	394422.5-0755922.2	01-822-1-01-02-210	394423.1-0770161.1	01-822-1-01-02-103	394423.2-0771613.2		
67-743-1-01-02-3-01	294424.1-0741217.1	28-922-1-02-2-2-1	394424.1-0772155.1	67-943-1-01-02-701	394424.2-0774217.2		
26-922-1-01-02-401	394424.2-0772255.2	67-943-1-01-02-201	394425.1-07534217.1	67-943-1-01-02-205	394425.1-0754253.1		
67-943-1-01-02-401	394425.2-0764217.2	67-943-1-01-02-403	394425.2-0764233.2	01-822-1-01-02-702	394428.0-0770523.0		
67-943-1-01-02-204	394429.1-0764147.1	23-922-1-01-02-202	394429.1-0772654.1	67-942-1-01-02-402	394429.2-0764147.2		
26-922-1-01-02-402	394429.2-07772054.2	01-822-2-0-01-02-012	394430.0-0777233.0	67-943-1-01-2-206	394430.1-0774248.1		
67-743-1-01-02-404	394431.2-0764246.2	28-913-0-01-00-301	394431.0-0774741.0	56-9-4-1-01-02-501	394431.0-0751960.0		
55-014-1-01-02-701	394431.0-0792002.0	01-802-3-01-02-010	394432.0-0776527.1	01-822-1-01-02-1-11	394432.0-0770527.2		
26-922-3-06-01-002	394432.0-0775311.0	63-907-1-02-02-6-1	394432.5-074237.0	26-922-3-05-01-001	394432.5-0773011.0		
26-922-1-01-02-701	394434.0-0772826.0	01-907-1-02-02-301	394435.0-0780432.1	05-907-1-02-02-502	394436.2-077432.2		
01-918-5-02-02-011	394437.1-0772275.1	01-918-5-02-02-012	394437.2-0772275.2	28-002-7-01-02-200	394437.2-0773526.0		
55-919-0-02-01-101	394439.0-0775593.0	30-907-1-02-01-401	394440.0-0795533.5	28-002-7-01-02-201	394440.2-0777536.0		
01-822-1-01-02-3-01	394441.0-0777315.0	31-002-7-01-02-301	394441.0-077115.0	01-822-1-01-02-1-11	394442.0-0770527.2		
67-944-1-01-02-401	294444.0-0771743.0	53-954-1-01-02-302	394444.0-0772231.0	01-822-1-01-02-2-201	394445.0-0773023.2		
26-922-3-07-01-001	394445.1-0773356.0	67-955-0-01-02-012	394445.6-0761743.0	61-802-1-01-02-209	394446.0-0774433.0		
01-802-1-01-02-402	394448.0-0777443.0	01-802-1-01-02-202	394448.1-0772448.1	29-903-5-01-02-011	394449.0-0781031.0		
29-702-5-01-02-012	394450.0-0781025.0	03-907-1-02-02-401	394450.0-0780434.0	15-967-5-02-01-011	394451.0-0780112.5		
61-919-5-02-02-010	394451.0-0777273.0	15-967-5-02-01-010	394451.1-0790112.6	15-957-5-02-01-012	394451.2-0790112.6		
15-973-7-01-01-014	394451.3-0761117.0	01-802-1-01-02-204	394451.3-077442.0	15-949-5-01-01-149	394451.4-077442.0		
67-922-1-01-02-703	394454.0-0764731.0	30-907-1-01-01-100	394454.0-0761160.0	03-000-0-00-00-000	394454.1-0734611.7		
55-944-1-01-02-602	394455.0-0792035.0	28-002-3-01-01-001	394455.0-0773066.0	28-002-3-01-01-002	394456.1-0773506.0		
15-967-5-03-01-011	394457.0-0760111.0	15-957-5-03-01-010	394457.0-0760111.0	15-967-5-03-01-012	394457.0-0760111.7		

Figure 45 (continued)

COMMONWEALTH OF PENNSYLVANIA
DEPT OF ENVIRONMENTAL RESOURCES

PAGE 2.

LAT-LONG CROSS REFERENCED TO ID CODE STATE WIDE

DATE 08/28/77

LAT-LONG CROSS REFERENCED TO ID CODE	STATE WIDE	LAT-LONG CROSS REFERENCED TO ID CODE	STATE WIDE
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67-959-1-01-02-202	394519,0-0763526,1	67-959-1-01-02-203	394519,2-0763526,2
03-0-2-7-01-0-2-170	394520,0-077533,0	28-002-7-01-02-3-0	394520,0-0773441,0
3-0-7-7-01-01-171	394520,0-077534,0	28-002-8-01-02-1-0	394520,1-0771130,1
0-0-0-0-0-0-00-C00	394522,0-0772521,0	34-0-0-7-7-01-1-0	394522,5-0771700,0
03-0-0-0-0-00-C00	394523,0-0775551,2	67-953-5-03-02-0-02	394525,0-0771611,0
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67-072-1-01-02-705	394652,0-0765738,1	67-002-1-01-02-3-04	394652,0-0765738,2
67-951-7-01-02-5-05	394654,1-0765820,1	67-951-7-01-02-3-05	394654,2-0765220,2
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C1-913-7-01-02-100	394708,0-0772133,1	01-913-7-01-02-1-01	394708,2-0772136,2

SECTION IV

SYSTEM MANPOWER AND OPERATING COST REQUIREMENTS

Currently, the Bureau of Water Quality Management has 29 people working full-time in support of WAMIS. This number, however, does not give a true indication of the manpower required merely to maintain the three operational modules. Many of the staff located at headquarters devote a significant amount of their time toward system design and development.

Of the 29 people working full-time in support of WAMIS, 15 are located at headquarters and 2 are located at each of seven regional offices. A WAMIS coordinator interfaces between the various Bureau headquarters divisions. The other 14 headquarters personnel are part of the WAMIS section.

The Chief of the WAMIS Section administers two units: the Development and Operations Units. Classifications of personnel in the Section are as follows:

- Section Chief
- Unit Managers (2)
- Systems Analysts (2)
- Programmers (3)
- Clerical Staff (6)

Each region is served by a professional WAMIS field representative and a clerk, hence, there are 14 WAMIS field personnel.

Estimated existing annual operating costs for WAMIS are \$422,782. However as mentioned previously, some of the staff is involved in system design and development efforts. If only those headquarters personnel required to maintain the system as it now operates were used, the estimated annual operating budget would be \$288,340. This assumes that the following staff would be required: one manager, five clerical personnel, and 14 field personnel.

SECTION V

SYSTEMS APPLICATION SUMMARY

Detailed technical documentation contained in Volume II covers the Facility Status, Contact, and Water Quality Modules and the Name File. The Name File is treated separately because it is a support system. The Cross-Reference Subsystem, on the other hand, is routinely updated as a part of the weekly Facility Status update and, therefore, is documented as a part of that module.

Details on availability of program tapes can be obtained by contacting the Washington Environmental Research Center, EPA, Washington, D. C., 20460, or the Pennsylvania Department of Environmental Resources. The programs, in order on each tape are:

Program Name	Module
1. CFRR01	Facility Status
2. CFUR99	Facility Status
3. CFVW05	Facility Status
4. COPR50	Contact
5. COUR30	Contact
6. COVR10	Contact
7. FAPR63	Facility Status
8. FAPW80	Facility Status
9. FARR01	Facility Status
10. FARR60	Facility Status
11. FARR70	Facility Status
12. FARW10	Facility Status
13. FAUW40	Facility Status
14. FAVW30	Facility Status
15. NMUR30	Name File
16. SRPZ10	Facility Status
17. SRPZ30	Facility Status
18. SRPZ32	Facility Status
19. WQPW45	Water Quality
20. WQRR01	Water Quality
21. WQRR02	Water Quality
22. WQRW10	Water Quality
23. WQUW35	Water Quality
24. WQUW50	Water Quality
25. WQVW30	Water Quality
26. WQVW40	Water Quality

HARDWARE

All programs are written in RCA COBOL and, in their totality, consist of some 33,000 source statements. An RCA Spectra 70 MOD45 Computer is currently employed to operate the WAMIS system. However, it should be possible to operate the system on any comparably sized third or fourth generation computer with appropriate Job Control Language changes. The system should be particularly adaptable to IBM hardware configurations. All programs may be accommodated in 95K of core with four disk packs and six tape drives or some comparable combination of peripheral storage devices.

STAFF

The size of staff required to operate WAMIS, exclusive of program development, depends on the number of transactions and required turnaround time. A minimum staff would consist of an operations manager, programmer, operator, and a keypuncher. Although this staff is adequate, the number of keypunchers is considered minimal to support a viable and responsive system.

OPERATIONAL SCHEDULING

The Commonwealth of Pennsylvania updates the master files of the three operational WAMIS modules weekly. The system could be updated more (less) frequently if desired, thus insuring more (less) up-to-date master files and allowing the frequency of certain reports to be increased (decreased) should the user desire. Care must be taken in changing report frequency, however, to ensure that the change in frequency is meaningful. For instance, a report that is presently designed to provide statistical information over monthly periods cannot be changed to a weekly report without some changes in the calculating routines themselves. The running time for updating master files depends upon the computer configuration employed and the amount of data input, but an average weekly update of all master files for the Pennsylvania System requires approximately 20 hours on the RCA Spectra 70 configuration. A very rough rule of thumb for report production is 15 minutes per report in addition to update time. This rule of thumb must be taken liberally, since the running time of a report obviously depends on many things, including the number of calculations made to produce the report and, more importantly, the number of lines of print contained in the report itself.

ELEMENTS OF DOCUMENTATION

Documentation in the Appendices contains user inputs, sample reports, and the following for each module: system flowchart, clerical procedures, control procedures, operator's instructions, system book, and program books. All of the above mentioned documentation is complete with the exception of the operator's instructions section for the Water Quality

Module which is not available as of this date. There are 26 Program Books distributed as follows: 1 in Name File, 3 in Contact, 8 in Water Quality, and 14 in the Facility Status Module.

USER INPUTS

Punched (IBM) cards are the vehicles whereby information is entered into the WAMIS computers. These cards are usually punched by staff personnel at WAMIS headquarters from formated coding sheets filled out by personnel in the field and subsequently forwarded to headquarters. Detailed instructions describing the manner in which the coding sheets are to be filled out, as well as instructions for transferring information from the coding sheets onto punched cards are contained in the user input section of the module documentation.

The importance of strict adherence to the procedures for entering data into the system cannot be overemphasized. The volume of data to be handled is very large and the personnel who collect are usually not oriented toward automatic data processing. Therefore, careful and detailed instruction in data entry procedures is a must if the system is to operate successfully. No matter how cleverly designed, an automated system will not produce credible output if its input is not within the limits of accuracy provided for in the system. Many automated systems have been discredited by poor data input design or procedures.

SAMPLE REPORTS

Actual sample reports produced by WAMIS are presented for each module. Actual report samples are used as well as report layouts to give the reader and prospective user the best possible picture of the type of information available from the Pennsylvania system in its present configuration. These are the basic reports only. There are an almost unlimited number of variations to these reports, major and minor, that can be obtained with very minor modifications to the report generating programs.

SYSTEM FLOWCHART

System flowcharts are included for each module and for the major subsystems within modules. Each flowchart consists of a block diagram representing the system and data flow throughout the system. Included are the required job control statements and descriptions of the data files. Examples of descriptions are type of volume the file resides on, record length, blocking factor, etc.

CLERICAL PROCEDURES

This subsection contains clerical procedures and a reference to the sample reports section. An example of a clerical procedure is the distribution of reports after they are produced.

CONTROL PROCEDURES

This section contains data control procedures and references to the system flowchart and sample reports sections. An example of a data control procedure is the routing of system inputs through the keypunch section to computer operations to final disposition.

OPERATOR'S INSTRUCTION

This is the computer run book and contains detailed run instructions for each program in the module along with reference to the system flowchart and sample reports sections. Included are abnormal halt messages and required actions. An example of a required action would be the correction of a mispunched control card followed by the required restart procedure.

SYSTEM BOOK

This is the system analyst's reference section. An introduction and narrative of the system is presented in this section. The system introduction describes the objectives of the system, and the system narrative briefly describes each program and its purpose. In addition, the system book has references to the system flowchart and sample reports. The system analyst would use this book to obtain an overview of the system and a brief narrative of the purpose of each program. It is particularly useful to the analyst in determining the impact that changes to one part of a system will have on the remaining parts.

PROGRAM BOOK

There is a program book for each of the 26 programs in WAMIS. The contents of each book are:

- Introduction
- Revision History
- Program Narrative
- System Segment Flowchart
- I/O Data Layouts
- Sample Reports
- Source Listing
- Operators' Section

The second step would entail running test data through all programs and checking the reports produced. The system flowcharts, job control statements, and operator's instructions would be very useful to the user in running the system. Job control statements direct the computer to execute programs in the required sequence. Job control statements are found in the system flowcharts sections.

The final step would be the building of the required data bases. Data bases generally grow over time, but the user should have enough data to provide useful output following implementation. The user's input section would be used for this step, as well as in the day-to-day operation of the system to provide guidance in the preparation of data.

The system book would be used to provide overall guidance during the implementation stage and should be updated thereafter. The program book would be used during implementation and whenever a change was needed. It should be updated with all program changes, especially concerning the source program listing. It would also be used by the programmer to research questions concerning what a program does or could be changed to do.

The clerical procedures and data control sections are used in daily operations to provide instructions to clerks regarding distribution of data and reports. In addition, instructions are provided to code control cards and to specify required tapes or other materials for proper job execution by the computer operator.

The introduction indicates the program's objective. Revision history describes the changes that have been made to the program. The program narrative describes the purpose of each paragraph.

A segment of the system flowchart and detailed descriptions of input and output files are in the program book. Detailed descriptions of files are necessary to obtain a thorough understanding of the file and its uses. The source listing produced by the compiler is included, as well as references to the sample reports and operator's instructions section.

The detailed process flowchart ("Quick Draw"), object program listing, locator map listing, and linkage editor map are not included since they are strictly applicable to the WAMIS as used on a particular hardware configuration. However, these documents can be readily generated upon installing WAMIS on particular computer system in the following manner: 1) process flowchart can be produced by the compiler; and 2) detailed process flowcharts can be obtained by running "Quick Draw" or a comparable program using as input the desired COBOL source program.

WAMIS IMPLEMENTATION

Implementation of WAMIS might proceed in the following three steps. The first step would be to obtain the WAMIS documentation report and program tape; all of the programs would then be compiled and cataloged on the user's computer. The compiler listings should be checked against the program listings contained in the program books to ensure completeness of each program.

**SELECTED WATER
RESOURCES ABSTRACTS**
INPUT TRANSACTION FORM

1. Report No. 2

3. Accession No.

W

4. Title Demonstration of a State Water Quality Management Information System

5. Report Date

7. Author(s)

Bureau of Water Quality Management

6. Performance Organization

9. Organization

Department of Environmental Resources
Commonwealth of Pennsylvania
Harrisburg, Pennsylvania 17120

10. Project No.

16090DRA

11. Contract/Grant No.

S-801000

12. Type of Report and Period Covered

13. Sponsoring Organization U.S. Environmental Protection Agency

15. Supplementary Notes

Environmental Protection Agency report number, EPA-600/5-74-022, August 1974

16. Abstract

This report is a documentation of the Pennsylvania Water Quality Management Information System (WAMIS). The report is divided into two volumes. The first is a program manager's overview of the system, while the second is a compilation of elements required for system application. The program manager's overview discusses the objectives of the system and its development, describes the operations of the various system modules, including required inputs and outputs as well as uses to which the system may be put, estimates manpower and operating cost requirements, and summarizes methods for system application. Detailed documentation of elements required to apply the existing three system modules - the Facility Status, Water Quality, and Contact Modules - is included in Volume II. Volume II includes system inputs with detailed coding instructions, sample output reports, and documentation of each of the three system modules. Module documentation is comprised of system inputs and outputs, system flowcharts, system books, control procedures, clerical procedures, operator's instructions, and all program books. Sufficient information is provided to enable application of WAMIS modules by other states or jurisdictions.

17a. Descriptors Information retrieval, data storage and retrieval, data processing, water pollution control, monitoring, state jurisdiction.

17b. Identifiers Water Quality Enforcement

17c. COWRR Field & Group

07B, C

Send To:

WATER RESOURCES SCIENTIFIC INFORMATION CENTER
U.S. DEPARTMENT OF THE INTERIOR
WASHINGTON, D. C. 20240

GPO

Abstractor

Institution