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INVENTORY OF

STATE DRINKING WATER

INFORMATION SYSTEMS

24524329

Prepared by

Office of Drinking Water
U.S. Environmental Protection Agency

DEC 13 1991

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I. Introduction

Basic Purpose and Scope of this Document

EPA's Office of Drinking Water (ODW) is pleased to present this inventory of State drinking water information systems. This document is intended to assist State staff members who are interested in learning about drinking water information systems in other States.

For example, if you are considering upgrading, expanding or improving your own State's drinking water information system, you may find it instructive to learn more about systems that other States currently use. This may help you in the following ways:

- **Expansion of system functions:** You may be able to identify particular system functions that you would like to add to your own State's system. For example, you may discover that some States' systems have particularly powerful capabilities for identifying MCL violations, and for automatically generating correspondence (e.g., warning letters).

- **Improvement of interface with EPA's system:** You may be able to identify better methods for translating your State's data into formats required by the Federal Reporting Data System (FRDS).

- **Development of new system:** You may want to consider developing a new information system for your own State. One approach might be to emulate another State's system -- by using its software design concepts. Alternatively, you may even want to obtain a copy of another State's software, load the software onto your own hardware, and tailor the software to meet your own State's needs[1]. You can use the inventory to identify other States' systems that might meet your needs and which are based on software and hardware that are available to you in your State.

- **Contact with other States:** You may want to learn the names and telephone numbers of staff in other States who are managing their own States' drinking water information systems.

[1] Under this approach, you would have to consult with the State that has the software, and would have to purchase copies of any proprietary packages required to run that software.

The inventory presents details on each information system, on a standard form. Exhibit I-1 describes the type of information that is contained in these forms. In brief, you can use this inventory to answer the following questions:

- What types of information systems have other States developed to manage their drinking water data?
- What hardware and software do these systems use?
- What types of data do these systems maintain in their data bases?
- What types of functions do these systems perform?
- Who uses these systems?
- What approaches do these systems use for converting data into FRDS formats?
- What documentation is available for these systems?
- Who can you contact in each State for more information?

You may want to skim through the entire inventory. Alternatively, you may want to focus on those systems that are compatible with the types of hardware and software available in your State. A description of how the inventory is organized is in Section C.

B. Context and Background for this Inventory

ODW prepared this inventory in response to requests from several States. It is one of several initiatives to improve State/EPA data sharing, and to assist the States in meeting their drinking water information management needs.

Most States have substantial data collection and analysis burdens associated with drinking water programs. Primacy States have to submit large amounts of data to EPA, which EPA then loads into FRDS to administer the Safe Drinking Water Act (SDWA). Virtually all States, including primacy and non-primacy States, have their own information management systems for Public Water System (PWS) data. These systems are based on microcomputers (sometimes referred to as "personal computers" or "PCs"), minicomputers, and mainframe computers.

Many States use their own drinking water information systems, in part, to assist in reporting data to EPA. Typically, a State will collect data and enter it into its drinking water information system; use the system to convert the data into a format that can be "read" by FRDS; then transmit this FRDS-compatible data to EPA, where it is loaded into FRDS.

In most cases, States also use their drinking water information systems to meet a variety of their own program support needs. For example, many States use their own systems to track inspections and enforcement actions, and some States use their systems to automatically flag violations of State and federal drinking water regulations.

C. How this Inventory is Organized

In addition to this Introduction, the inventory contains two other chapters and an appendix.

Chapter II: **Overview.** This chapter provides an overview of selected State drinking water information systems that are included in this inventory. Part of the overview includes a table which summarizes each drinking water system.

A review of this table will give you a basic understanding of all of the systems in the inventory. In addition, this table can help you identify a subset of systems of particular interest to you. For example, you may want to use the summary table to identify all systems that use dBASE software.

Chapter III: **Detailed Descriptions of Each State's System.** This chapter describes each State's drinking water information system in detail. The information is presented on standard-format inventory forms. The forms are quite detailed, and typically are at least nine pages long for each State. The forms are arranged alphabetically, by State. *We encourage you to review the table and summary information in Chapter II first -- and then decide which of the detailed inventory forms (in Chapter III) you want to review.*

Appendix A: **Examples of System Outputs.** Appendix A presents examples of output reports and also includes sample pages of system documentation.

D. Sources of Information in this Inventory

This inventory is based on information supplied by State drinking water staff. The interviewees are listed in the inventory forms in Chapter III. All information was obtained by telephone. Due to limited resources, the methodology for this inventory did not include on-site reviews or system tests.

After compiling the information, ODW sent initial drafts of each inventory form to the EPA Regions and to the States for their review and comment. Approximately 32 States returned comments before the deadline for this document. This version of the inventory reflects these comments. Comments we received past the deadline will be incorporated in the next version of the inventory.

E. How this Inventory Will be Updated

ODW will update this inventory periodically, and will send copies of updated pages to States.

We anticipate several types of changes:

- We will continue to respond to comments, as we receive them. If you want to propose changes or corrections, please photocopy the appropriate pages, make the necessary changes on the photocopy, and send it to EPA. (See section "F", below, for contact information.)

- We may prepare descriptions of additional State systems. (Some States maintain more than one system to manage their drinking water information. In the current version of the inventory, we describe only one system per State. If your State has more than one system, and you think the other system(s) should be described, please let us know.)

- We may perform a thorough update of the inventory -- probably on an annual basis.

ODW would like to receive comments regarding the updating process. Specifically, how often should the inventory be updated? If you have suggestions, please let us know.

F. How to Contact EPA Regarding this Inventory

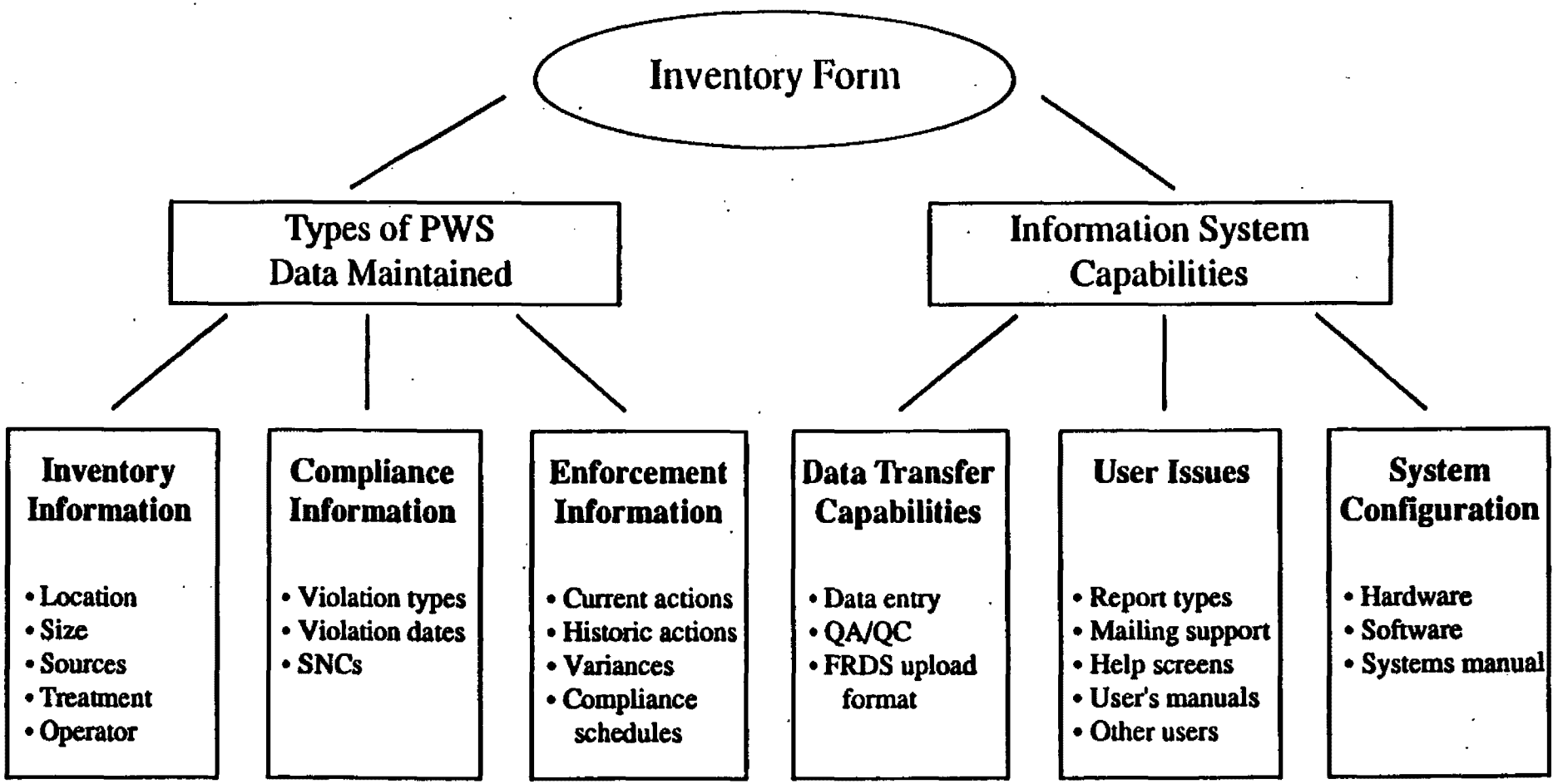
Please contact Arnetta Davis, in EPA's Office of Drinking Water, if you have questions or comments; need additional copies of this document; have suggestions on how to modify, improve or add to the inventory; or if you want to propose changes or corrections.

Ms. Arnetta Davis
Office of Drinking Water
U.S. Environmental Protection Agency (WH-550E)
Room E1113C
401 M St., SW
Washington, DC 20460

Telephone: (202) 382-2803
Telefax: (202) 245-4383

Exhibit I-1

INFORMATION CONTAINED IN THE INVENTORY FORM



II. Overview

This chapter provides an overview of the State drinking water information systems that are included in this inventory. By reading this chapter, you can obtain a good understanding of the range of systems in the different States.

In addition, by consulting the summary table in Exhibit II-1, you can identify specific systems that meet certain criteria (e.g., systems that run on particular hardware and/or software). You can then decide which systems you want to explore in greater detail. Chapter III contains the detailed descriptions of each system.

A. Summary Table

Exhibit II-1, starting on the next page, provides a summary of the States' drinking water information systems, listed alphabetically by State. For each drinking water system, the summary table indicates:

- Whether the system maintains:
  - -- MCL & Monitoring Violations
  - -- Enforcement Actions
  - -- Compliance Schedules
- Whether the system provides mailing support
- Whether the system determines SNCs
- The data output format for FRDS uploading
- The hardware and software on which the system currently resides
- The name and telephone number of a lead contact within the State.

Exhibit II-1

STATE INFORMATION SYSTEM SUMMARY

	Maintains MCL & Monit. Violations	Maintains Enforcement Actions	Provides Mailing Support	Maintains Compliance Schedules	Determines SNCs	FRDS Upload Format	Key Software	Current Hardware Platform	State Contact
Alabama	MCL & Mont.	Yes	Yes	No	In Development	DTF	Pace	Wang VS 73-60	Michael McCary (205) 271-7927
Alaska	MCL & Mont.	Yes	Yes	Yes	Yes	DTF	Advanced Revelation	PC Network	Doug Martinson (907) 273-4275
Arizona	Data tracked manually					DTF*	dBASE III+ & ORACLE	PC Network & Honeywell DPS6	Robert Andrews (602) 257-2205
Arkansas	MCL & Mont.	No	Yes	Yes	Yes	Hardcopy & ASCII Files	Basic	Wang VS5000	Harold Seifert (501) 661-2623
California	MCL & Mont.	Yes	Yes	In Development	In Development	DTF	Focus	IBM Mainframe	Mark Rathun (415) 540-2186
Colorado	MCL & Mont.	Yes	Limited	No	No	Card & DTF*	dBASE IV	PC	Dave Rogers (303) 331-4554
Connecticut	MCL & Mont.	Limited	No	Yes	In Development	DTF*	dBASE III	PC Network	Joy Zocco (203) 566-3049
Delaware	MCL & Mont.	Limited	No	No	No	DTF	FRDS-DE	PC Network	Jack Pingree (302) 739-5410
Florida	MCL & Mont.	Yes	Yes	Yes	Yes	DTF	COBOL	UNISYS 2200	Kenna Study (904) 487-1762
Georgia	MCL & Mont.	Limited	Yes	Limited	No	DTF	INFO & Clipper	Prime 2755 & PC Network	Paul Arnold (404) 656-4807

* DTF uploading capability is achieved by use of FRDS-DE, a system developed by EPA.

	Maintains MCL & Monit. Violations	Maintains Enforcement Actions	Provides Mailing Support	Maintains Compliance Schedules	Determines SNCs	FRDS Upload Format	Key Software	Current Hardware Platform	State Contact
Hawaii	MCL & Mont.	Limited	No	No	No	DTF*	dBASE III+	PC	Linda Bauer (808) 543-8258
Idaho	MCL & Mont.	Yes	Yes	No	Yes	DTF	dBASE III	PC Newtwork	Renee Hardy (208) 334-5870
Illinois	MCL & Mont.	Yes	Yes	Yes	No	DTF	COBOL	IBM 3090	Charles Bell (217) 785-4653
Indiana	MCL & Mont.	Yes	Yes	Yes	No	DTF	dBASE IV	PC Network	Linda Edwards (317) 233-4190
Iowa	MCL & Mont.	Yes	Yes	Yes	No	DTF	IDMS Database	IBM 3090	Tamie Calef (515) 281-8956
Kansas	Data tracked manually.					Card	Wordperfect	PC Network	Jean Herrold (913) 296-5518
Kentucky	MCL & Mont.	Yes	Yes	Limited	No	DTF	COBOL & SAS	IBM 3090	Vicki Ray (502) 564-3510
Louisianna	MCL & Mont.	No	Limited	No	No	Card & MSIS	COBOL & Clipper	IBM Mainframe & PC Network	Leslie LoMon (504) 568-5109
Maine	MCL & Mont.	Yes	Yes	Yes	No	DTF*	dBASE III+	PC Network	Lynda Hadsell (207) 289-5683
Maryland	MCL & Mont.	Yes	No	No	No	DTF*	Lotus 123	PC	Hashem Pezeshki (301) 631-3715
Massachusetts	MCL & Mont.	Yes	Yes	No	Yes	DTF	ORACLE	PC Network	Karen Doherty (617) 292-5775
Michigan	MCL & Mont.	Limited	Yes	No	No	Card & DTF*	COBOL	Honeywell DPS-6	Karen Kalinowski (517) 335-8316
Minnesota	Data tracked manually					Card	dBASE IV	PC Network	Doug Mandy (612) 627-5179
Mississippi	MCL & Mont.	Limited	Limited	No	No	DTF*	FoxBASE	PC	Leland May (601) 960-7518

* DTF uploading capability is achieved by use of FRDS-DE, a system developed by EPA.

	Maintains MCL & Monit. Violations	Maintains Enforcement Actions	Provides Mailing Support	Maintains Compliance Schedules	Determines SNCs	FRDS Upload Format	Key Software	Current Hardware Platform	State Contact
Missouri	MCL & Mont.	Yes	No	No	Yes	DTF	SAS & dBASE	Mainframe & PC	Patty Purvis (314) 751-8330
Montana	MCL & Mont.	No	Yes	No	Yes	DTF	Advanced Revelation	PC Network	Jim Melsted (406) 444-2406
Nebraska	MCL & Mont.	Yes	Yes	Yes	No	DTF	dBASE III+	PC	Scott Peterson (402) 471-2541
Nevada	Limited MCL & Mont.	Limited	Limited	No	No	Card & DTF	dBASE III	PC	Larry Roundtree (702) 687-4750
New Hampshire	Limited MCL	Limited	Yes	No	No	DTF*	PACE	WANG VS 7110	Laurie Cullenof (603) 271-2923
New Jersey	MCL & Mont.	Yes	Yes	No	Yes	DTF	SAS	IBM 4381	Vickie Prill (609) 292-9979
New Mexico	MCL & Mont.	Yes	Yes	No	No	DTF	dBASE IV	PC	Richard Asbury (505) 524-6300
New York	MCL & Mont.	Yes	Limited	Yes	No	MSIS	IDMS	IBM Mainframe	Frank Faro (518) 458-6731
N. Carolina	MCL & Mont.	Yes	Yes	Yes	Yes	MSIS	COBOL	WANG VS1000	Martha Moore (919) 733-2321
N. Dakota	MCL & Mont.	Yes	Yes	No	Limited	DTF	dBASE IV	Minicomputer	Jim Allman (701) 224-4558
Ohio	MCL & Mont.	Yes	Yes	In Development	In Development	MSIS & DTF	COBOL	IBM 3090	Evelyn Young (614) 644-2752
Oklahoma	MCL & Mont.	Limited	Yes	Yes	No	Card & MSIS	IBM 4381 & PC Network	COBOL & dBASE III+	Mike Harrell (405) 271-7352
Oregon	MCL & Mont.	No	Yes	Yes	No	DTF	PC Network	dBASE III+	Mary Alvey (503) 229-5056
Pennsylvania	MCL & Mont.	Yes	Limited	No	No	DTF	COBOL	Wang 5000	Barry Greenawald (717) 787-0122

* DTF uploading capability is achieved by use of FRDS-DE, a system developed by EPA.

	Maintains MCL & Monit. Violations	Maintains Enforcement Actions	Provides Mailing Support	Maintains Compliance Schedules	Determines SNCs	FRDS Upload Format	Key Software	Current Hardware Platform	State Contact
Rhode Island	MCL & Mont.	Yes	Yes	Yes	Yes	Card & DTF*	4GL File Pro 16+	PC Network	Brian Barrett (401) 277-3336
S. Carolina	MCL & Mont.	Yes	Yes	Yes	Yes	MSIS & DTF	dBASE III+	PC Network	Melinda Mathias (803) 734-5310
S. Dakota	MCL & Mont.	Yes	Yes	No	Yes	DTF	ADABASE & dBASE	IBM 3090 PC Network	Rob Kittay (605) 733-4208
Tennessee	MCL & Mont.	Yes	Yes	No	Yes	DTF	FoxBASE	PC	Margaret Keck (615) 741-6636
Texas	MCL & Mont.	In Development	Limited	No	No	MSIS	COBOL	UNISYS 1100	Anthony Bennett (512) 458-7497
Utah	MCL & Mont.	Yes	Yes	No	Yes	DTF	EDITOR	Nixdorf 600/45	Ken Bousfield (801) 538-6159
Vermont	MCL & Mont.	Yes	Limited	No	No	DTF	1032	VAX 8550	Kim Jones (802) 863-7344
Virginia	No	No	Limited	No	No	DTF*	COBOL	IBM 4381	Evans Massie (804) 786-1756
Washington	MCL & Mont.	Yes	Yes	No	No	MSIS	ADABASE	IBM Mainframe	Peggy Johnson (206) 753-3528
West Virginia	MCL & Mont.	Yes	Yes	No	No	DTF*	dBASE III+	PC	Jan Griffith (304) 348-2981
Wisconsin	MCL & Mont.	Yes	Yes	No	No	DTF	ORACLE	IBM Mainframe	Sharon Burbach (608) 266-8696
Wyoming	MCL & Mont.	Yes	Yes	Yes	No	DTF	dBASE IV	PC Network	(See Inventory Form)

* DTF uploading capability is achieved by use of FRDS-DE, a system developed by EPA.

B. Overview of Selected State Systems

To help illustrate the range of systems, we have selected a handful of innovative systems to describe briefly in text. These descriptions illustrate the different approaches various States use to manage their PWS data. You may want to read these summaries to obtain a flavor of the type and range of systems before proceeding to the detailed inventory forms contained in Chapter III.

1. Alaska

The Alaska Department of Environmental Conservation (DEC), Division of Environmental Quality, developed the "APWS" system. The system is written in Advanced Revelation, a commercial database package that runs in a DOS environment. APWS resides on 286- and 386-based microcomputers linked by a Novell network, and represents a major upgrade of Alaska's previous information system. The system currently maintains the last five years of information about Alaska's 4000 Public Water Systems (PWSs).

APWS has the following approximate storage requirements:

- 640 kilobytes of RAM.
- 5 megabytes storage for the Advanced Revelation software package.
- 5 megabytes of storage for the system and associated programs.
- 70 megabytes of storage for PWS data.

Sampling results and updated inventory information are received in hard copy from laboratories and five district offices. All updates to the system are performed via on-line data entry in DEC's regional offices.

The system produces standard reports, and has extensive ad-hoc reporting capabilities. All reports can be viewed on screen or sent to a printer for hard copy. On-line help screens are available to assist users unfamiliar with the program. A user's documentation manual provides an overview of the entire system as well as a description of each data field.

Other highlights of the system include:

- **Extensive Data Structure.** The system is capable of maintaining all of the data required by FRDS-II and also allows DEC to store some of its general administrative data.

- **Violation Flagging, and Generation of Correspondence to Non-Compliers.** The system automatically identifies all MCL violations and automatically creates a corresponding violation record. Entry of monitoring violations causes the system to prompt the operator to correct the input. If no correction is made, the system automatically brings up a violation report screen where the violation is documented. Upgrades to the system, expected to be complete in December of 1991, will include the ability to automatically generate letters to PWSs in violation.

- **Automated QA Support for Data Entry.** In addition to the non-reporting violation responses described above, the system has built-in edit-checking to ensure that MCL entries fall within acceptable ranges. System users are responsible for checking the accuracy of all other information they input.

- **Strong Capabilities for Uploading to FRDS-II.** The system automatically writes data (in Data Transfer Format) to a floppy disk, which DEC sends to Region X.

2. Florida

The Florida Department of Environmental Regulation (DER), Drinking Water Section, developed the "PWS Data Base" system. This system is written in COBOL and resides on a UNISYS (Sperry) 2200. The data base maintains approximately 300,000 records, totaling 275 megabytes of storage. The system is relatively new, developed shortly after FRDS-II was created. DER uses the database to manage information on Public Water Systems (PWSs).

The system supports remote and local data entry. For example:

- Approximately 20 field offices (county and district) enter data themselves. These offices utilize on-line data entry capabilities, via a telecommunications hookup to the PWS database.

- Inventory data for the balance of the counties is performed by DER's District Offices, which also use on-line hookups to the system.

- Compliance and violation data is entered by DER Headquarters staff, using terminals that are directly connected to the system. (This includes sampling results data, which is submitted directly to DER Headquarters by certified laboratories.)

The system produces standard reports, and also provides an ad-hoc reporting capability. Standard reports are generated using a library of report programs which DER wrote using Data Ease software. Data Ease is also used for ad-hoc reporting capability.

Other highlights of the system include:

- **Extensive Data Structure.** The system maintains the same types of data as FRDS-II, as well as additional fields not in FRDS-II.

- **Violation Flagging, and Generation of Correspondence to Non-Compliers.** The system automatically tracks the types of monitoring reports PWSs are required to submit for the current month. The system flags all instances of non-reporting, and also flags MCL violations. The system then generates letters to those PWSs in violation. Another capability of the system is the ability to identify PWSs in significant non-compliance. (DER plans to update the definition of SNC to correspond with EPA's three-tier definition.)

- **Compliance Management Support.** Compliance schedules can be input into one of several free-form screens to facilitate PWS supervision. Monitoring limits for trihalomethanes, Chem/Rads, and bacti (coliform) can easily be altered to facilitate stricter compliance. The capability to easily alter other monitoring limits is planned for the future. Reports indicating the last inspection date of each PWS are used to

schedule future inspections. Variance and exemption data can also be entered into the system.

- **Automated QA Support for Data Entry.** As sampling results are input, all values resulting in MCL violations flash on screen. This allows for confirmation of correct data entry. (In addition, Drinking Water Division staff manually review high and low violation values for quality assurance.)

- **Strong Capabilities for Uploading to FRDS-II.** The system automatically writes data (in Data Transfer Format) onto a magnetic tape, which DER sends to EPA Region IV. No intermediate manual steps or adjustments to the data are required.

The system has both a user's manual and a technical guide.

3. Kentucky

The Kentucky Department of Natural Resources and Environmental Protection, Division Water, uses a customized version of the Model State Information System (MSIS). The customized system is written in Structured COBOL and SAS, and resides on an IBM 3090 mainframe. The master data file and update routines are in COBOL. Data are kept in flat files, where SAS is used to generate printed and on-screen reports, and to perform statistical analysis of the information.

Inventory information and sample results are input to the system by keypunch operators in the central office. To reduce keypunch error, all data is input by two operators, whose files are then compared. Entries not matching are rekeyed. All violations in the system are cross checked manually. The system generates reports from a library of programs written in SAS. Reports can be reviewed on screen or in hard copy. There is currently no special utility or report shell to make it easy for the user to request ad hoc reports.

Other highlights of the system include:

- **Extensive Data Structure.** The system has the capability to maintain all of the data fields in FRDS-II. Revisions and updates to the system have kept it current with FRDS-II additions, including the revised reporting requirements.

- **Violation Flagging, and Generation of Correspondence to Non-Compliers.** The system stores all sampling results and flags any MCL violations. Instances of non-reporting are also identified as violations. A subroutine can identify significant non-compliance violations which are stored in a SAS data set for further analysis. Letters to PWSs in violation are automatically generated by the system.

- **Compliance Management Support.** Compliance schedules can be input into the system, which will then track a PWS's progress. Although this capability exists, it is not used by the Department. All current and historical enforcement actions are stored by the system.

- **Strong Capabilities for Uploading to FRDS-II.** The system writes data to magnetic tape in Data Transfer Format using SAS programs. There are no intermediary steps or conversion programs.

The user's and systems administration manuals developed by USEPA for the MSIS system are outdated. They do not reflect additional programming capabilities and do not contain information on the program code or reporting capabilities of SAS.

4. New Jersey

The New Jersey Department of Environmental Protection (DEP), Division of Water Resources, administers the New Jersey Public Water Systems (NJPWS) information management system. The system resides on an IBM 4381 mainframe, and is written in SAS. DEP staff access the mainframe via dedicated terminals and microcomputers emulating dedicated terminals. The system is used to manage information on New Jersey's Public Water Systems (PWSs).

PWS sample results and updates are uploaded in batch files created by keypunch operators in DER's central office. Standard printed reports are generated using an assortment of programs written by DER. Ad hoc reports can only be generated by users who can write their own SAS retrieval routines. There is no formatted on-screen reporting capability, although users do have on-screen access to raw data files.

Other highlights of the system include:

- **Extensive Data Structure.** The system maintains as much data as FRDS-II. The chart (in Appendix A) provides an overview of the system architecture.

- **Violation Flagging, and Generation of Correspondence to Non-Compliers.** The system automatically identifies sample results that are MCL violations. The system also tracks reporting frequencies and sample submission dates, and can automatically flag non-reporting/monitoring violations. Violations causing a PWS to be in significant non-compliance, as defined by the state, are also identified by the system. Letters indicating non-compliance are automatically generated by the system and sent to all PWSs in violation.

- **Strong Data Manipulation Capabilities.** Data maintained by the system can be accessed and displayed in almost any format. The system software, SAS, is very powerful and can manipulate data more extensively than most database programs. This ability allows DEP to run statistical analysis of the data and supply other state offices with useful information.

- **Strong Capabilities for Uploading to FRDS-II.** All system information is sent to FRDS-II via a dedicated telephone line, directly to NCC. Violation information is reported in Data Transfer Format (DTF). Inventory information is uploaded in MSIS, or FRDS 1.5, format. DER is presently implementing program changes, and expects to upload all information to FRDS-II in DTF by early 1991.

- **Extensive Documentation and User Support.** DER has developed both a user's manual and a systems administration manual for NJPWS. These manuals, currently under revision to include new FRDS-II update information, include a data element dictionary and descriptions of each field.

The system contains built in edit-checking routines to ensure sample data is within reasonable criteria. DER staff also review printed violation reports for further quality control.

5. South Carolina

The South Carolina Department of Health and Environmental Control (DHEC), Division Drinking Water Quality and Enforcement, developed the Water Supply Information Management System. The system is written in dBASE III+, and resides on a DOS-based microcomputer. The microcomputer is connected to other microcomputers by a Novell network and is also hardwired to an NAS 8000 mainframe. The system is used to track Public Water System (PWS) data and upload that information to FRDS.

Hard copy data from laboratories and regional offices are input by DHEC staff into a copy of the system residing on a second microcomputer on the network. Once complete, updated files are copied to the primary system to replace the preexisting data files. South Carolina uses the system to track all PWSs, including those serving less than 25 people.

The system has the following approximate storage requirements:

- 640 kilobytes of RAM to run the system.
- 600 kilobytes of storage for the dBASE application.
- 350 kilobytes of storage for programs written by DHEC.
- 400 kilobytes of storage for entry programs.
- 4.9 megabytes of storage for indexes.
- 22 megabytes for data storage.

The system generates standard reports, programmed by DHEC, that can be selected from menus. Ad-hoc reports can be generated by users familiar with dBASE commands. All reports are available in hard copy, from a printer linked to the network, or onscreen.

Other highlights of the system include:

- **Extensive Data Structure.** The system maintains all data required for a PWS to be registered in FRDS-II, and most other data maintained by FRDS-II.
- **Violation Flagging, and Generation of Correspondence to Non-Compliers.** The system automatically flags all MCL violations. Instances of non-monitoring and reporting are also identified as violations. Through a menu selection, notification letters can be generated to PWSs in violation.

- **Compliance Management Support.** Compliance schedules can be entered into the system, which will then track the PWSs progress in meeting that schedule. There are no fields for variances or exemptions since the state does not issue any.

- **Automated QA Support for Data Entry.** The system has built-in edit-checking capabilities for monitoring data. DHEC staff manually review at least 10% of all data for quality control.

- **Use of dBASE Software.** dBASE is a widely used software package which many people use. Training and programming time can be reduced for departments with staff familiar with the software.

Violation data is prepared for FRDS in Data Transfer Format (DTF). Inventory information is prepared in MSIS (FRDS 1.5) format. The system is currently under revision, and DHEC forecasts all data will be uploaded in DTF by mid-1991. To upload to FRDS, data is transferred from the microcomputer to the NAS 8000 mainframe, where it is sent over a leased line (i.e., telecommunications line) to NCC.

6. Tennessee

The Division of Water Supply of the Tennessee Department of Conservation developed the "Tennessee Compliance Tracking System" using FoxBASE+ (Version 2.1), a commercial database package that runs in an IBM DOS environment. The system is installed on an NCR brand 286 based microcomputer and requires 60 megabytes of storage to maintain the state's Public Water Supply (PWS) data for the last six years.

A copy of the Compliance Tracking System is installed on a second microcomputer which is hardwired to the first. Update information is entered on line into the second system. Once completed, updated files are copied to the primary system to replace the old data files. This allows the Department to have the master Compliance Tracking System as a backup and available for full time data retrieval.

Report programs which the Department wrote using R&R Relation Report Writer software, support both standard and ad-hoc printed reports. Other highlights include:

- **Extensive Data Structure.** The system has the capability to maintain almost all of the data fields in FRDS-II.

- **Violation Flagging, and Generation of Correspondence to Non-Compliers.** The system automatically identifies all non-reporting and MCL violations. The system can also identify violations and PWSs that meet or exceed significant non-compliance levels. Violation notices are then generated by the system and sent to those PWSs in violation. In addition, mailing labels and general information letters can be generated by the system.

- **Automatic QA Support for Data Entry.** Built-in edit-checking routines check data eligibility. Fields that are coded with edit checks will only accept predetermined answers or specific types of data as valid entries.

- **Quick and Easy Program Adaptability.** Since the program resides on a single microcomputer, programming changes can be made with relative ease. Structural changes, such as the addition of new data fields or changes to the format of output, are easy to implement.

- **Strong Capabilities for Uploading to FRDS-II.** The system writes output to a floppy disk in Data Transfer Format (DTF), which the Department sends to Region IV.

There are no user's or system administration manuals for this system. A limited number of help screens are written into the program. Knowledge of FoxBASE is necessary to implement program changes.

7. Utah

The Utah Department of Health (DOH), Division of Environmental Health, Bureau of Drinking Water/Sanitation, developed the Bureau of Water/Sanitation System. The system resides on a NIXDORF[2] 600/45 minicomputer, and is written in Editor. The system maintains data on Public Water Systems (PWSs), and small non-public water systems that fall below federal reporting limits.

Seven work stations are tied into the minicomputer, which has a 66 megabyte hard disk. The information system runs on 56 kilobytes of RAM. The system occupies slightly more than 5 megabytes of disk storage, and takes up an additional 34 megabytes for data storage.

Inventory information and sample results from private laboratories are keypunched into the system by central office staff. State laboratory bacteriological and chemical sample results are uploaded from magnetic tape submitted and prepared by the lab. The state is expecting private labs to have electronic transfer capability by the middle of 1991.

Standard reports are available from a variety of programs written by DOH staff. Ad-hoc reports can only be generated by writing new programs. All reports can be viewed on screen or produced in hard copy. The system is menu-driven; it presents message lines indicating which options are available to the user. DOH staff feel it is very easy to use.

Other highlights of the system include:

- **Extensive Data Structure.** The system maintains almost all of the data fields in FRDS-II. The system maintains additional data in the following areas:
  - Submission and tracking of engineering plans.
  - Data on certified operators, including their training and examination history.
  - General administrative data for the Bureau of Drinking Water/Sanitation such as prioritization of enforcement actions and staff statistics.
  - Emergency response action lists.
  - Mailing lists of interested parties and support groups.

[2] The NIXDORF 600/45 is an early generation minicomputer running in a proprietary DPEX operating system. Newer NIXDORF products run on the UNIX operating system and can support programming done on older models.

- **Violation Flagging, and Generation of Correspondence to Non-Compliers.** The system automatically identifies all MCL violations, and instances of non-reporting. Notification letters to those PWSs in violation are generated by the system through interaction with a WANG V-S word processor. The system indicates which PWSs are in significant non-compliance, and can generate hard copy lists of those systems.

- **Strong Capabilities for Uploading to FRDS-II.** The system was one of the first systems to upload PWS information in Data Transfer Format (DTF). Data files are sent from the NIXDORF minicomputer to the Department's (Prime computer) mainframe, where they are transferred via modem to Region VIII.

III. Detailed Descriptions of Each State's System

This chapter provides details about each State's information system on standard forms. These systems vary significantly on a number of dimensions, such as types of data maintained; functions performed; hardware and software employed; and methods for transferring data to FRDS.

These forms are based on information from State drinking water and data management personnel. As noted in the Introduction, all information was obtained by telephone, and States and Regions were provided the opportunity to comment on interim drafts. We received comments from approximately 32 states. The attached forms reflect these comments. Upgrades and enhancements to State information systems occur regularly. Please see Section E in the Introduction on how this inventory will be updated. New and updated information received by ODW will be reflected in future versions of this document.

Inventory Form
State Drinking Water Information Systems

Alaska

1. Background Information

1.1. Tracking number for this interview form: **AK1**

1.2. Information system identification

1.2.1. Official name of system: **Advanced PWS Supply**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Alaska**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Conservation

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Doug Martinson**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Environmental Quality, Drinking Water Program

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **3601 C Street, Ste. 316**
Anchorage, AK 99503

1.4.4. Interviewee's telephone number: **(907) 273-4275**

1.4.5. Backup contact:

2. **For which purposes is the system used (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports

For State regulated issues.

- X General administration
- X Uploading to FRDS
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data

_X_ System location data

_X_ Source location data (e.g., well latitude/longitudes)

The system has fields for this information, but the State has not yet entered the data.

_X_ Sanitary Surveys

_X_ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Type of violation

_X_ Date of violation

_X_ Parametric data (e.g., limit; level measured)

_X_ Capable of storing multiple violations of same type

_X_ Capable of storing multiple violations of different types

3.3.1. _X_ Is the system capable of identifying or flagging violations

_X_ Monitoring/reporting violations

The system automatically creates a violation record if there is a monitoring violation.

_X_ MCL violations

___ SNCs (also see next question)

The system can sort for SNCs, but they do not use this capability.

3.3.2. Does the system store an indicator of whether a particular violator is a SNC? **Yes**

How are SNCs defined in this system?

_X_ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

__X__ Variances

__X__ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

Can print a list with last inspection dates.

__X__ Summaries of results of inspections

Can input the last survey date and the name of the inspector.

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

____ Data arrives directly from the field (e.g., sysem; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

Data is received and input in Regional offices.

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Yes. There were some problems with coding data in the correct (DTF) format, and the first upload had incomplete data which FRDS rejected.

Was the conversion fully successful?

Fairly successful.

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

_X_ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

_X_ Other offices within the same state

Regional offices have access to the data. There is a demand by other agencies to use the data.

__X__ Other states

Montana uses a copy of the system.

____ Other

5. **System configuration and system management and administration**

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

Compaq 386s and NCR work stations.

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell 215**

____ PC/minicomputer networkNetwork type:

____ PC/mainframe networkNetwork type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **DOS**

Applications software: **Advanced Revelation**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

Needs to be updated.

____ Training material

____ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

They want to update the system to allow regional offices to input data and electronically upload it into the system.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

__No__ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

__X__ Would any other fees be required (e.g., for licensing of proprietary software)?

Any users would need to purchase Advanced Revelation.

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

5 megabytes of storage are needed for the Revelation software package and an additional 5 megabytes are needed for the system's programs.

__X__ What is least amount of memory required for the system to run?

640 kilobytes of RAM are needed to run the system.

__X__ What are the current storage requirements for the system's data?

Each Region requires an average of 20-30 megabytes of disk storage for data. The entire data set for the state, encompassing five years of data, requires 70 megabytes of storage.

__X__ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The system can address FRDS-II well, and is easily adaptable to changing requirements (especially for surface water treatment laws that may be changing). The system does require an in-depth knowledge of Revelation.

7. Miscellaneous

7.1. Does the interviewee use FRDS

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2 Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Alabama

1. Background Information

1.1. Tracking number for this interview form: **AL1**

1.2. Information system identification

1.2.1. Official name of system: **FRDS-II**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **FRDS**

1.2.4. State: **Alabama**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Management

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Mike McCary**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Environmental Data Section**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1751 Congressman W.L. Dickinson Drive Montgomery, AL 36130**

1.4.4. Interviewee's telephone number: **(205) 271-7927**

1.4.5. Backup contact: **Nanette Lumpkin**

2. **For which purposes is the system used (put an "X" next to all that apply.)**

_X_ Inventories of water systems

_X_ Compliance (e.g., tracking violations; tracking inspections)

To date, the only entries into the system are violations. The system will be able to identify and track violations when all monitoring information and sample results are entered. This capability is expected by the end of 1991.

_X_ Enforcement (e.g., enforcement histories)

_X_ Mailings support (e.g., generation of mailing labels; production of warning letters)

____ Fee tracking

____ Tracking of submission of required reports on monitoring

____ Tracking of submission of other required reports

_X_ General administration

_X_ Uploading to FRDS

_X_ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

_X_ CWSs

_X_ NTNCs

_X_ NCWSs

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Source/entity data

Each source is maintained as a separate entry.

_X_ System administration data

_X_ Demographics (e.g., population served)

_X_ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

A separate dBASE program on a PC tracks drinking water and waste water operator certification.

__X__ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

Planned changes to the system will enable it to track the following:

__X__ Monitoring/reporting violations

__X__ MCL violations

__X__ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?
No

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles).

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

__X__ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

__X__ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion? **No**

Was the conversion fully successful? **Yes**

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

__X__ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

Other State offices have data access capabilities, but cannot manipulate the data.

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe

WANG VS 73-60 With Hardwired terminals

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer networkNetwork type:

____ PC/mainframe networkNetwork type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **WANG operating system**

Applications software: **PACE**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

__X__ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Walter Corbitt**

Address: **(same)**

Telephone: **205-271-7921**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

The department is in the conversion process and working idiosyncracies out of the program.

5.5.2. What other changes are planned for the system?

Changes will be made as required to report to EPA.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

__No__ Would the owning state agency charge a fee for a copy or use of the system?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

__X__ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application **Two.**

6. **What are the interviewee's perceptions of system's strengths and weaknesses?**

Very pleased with system. Its architecture is just like the federal FRDS-II system. PACE does have some problems in terms of extracting data. Users must make a formalized query.

7. Miscellaneous

7.1. Does the interviewee use FRDS

_X_ Yes, the interviewee personally uses FRDS

Frequency: **Quarterly**

Main purpose(s): **Data checking**

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Arizona

1. Background Information

1.1. Tracking number for this interview form: **AZ1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Arizona**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Quality

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Robert Andrews**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **2005 N. Central Avenue**
Pheonix, Arizona 85004

1.4.4. Interviewee's telephone number: **(602) 257-2205**

1.4.5. Backup contact:

All data is now tracked manually by the state. Sample data is input quarterly into the FRDS-DE program to update FRDS-II.

For which purposes is the system used (put an "X" next to all that apply.)

____ Inventories of water systems

____ Compliance (e.g., tracking violations; tracking inspections)

____ Enforcement (e.g., enforcement histories)

____ Mailings support (e.g., generation of mailing labels; production of warning letters)

____ Fee tracking

____ Tracking of submission of required reports on monitoring

____ Tracking of submission of other required reports

____ General administration

____ Uploading to FRDS

____ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

____ CWSs

____ NTNCs

____ NCWSs

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Source/entity data

____ System administration data

____ Demographics (e.g., population served)

____ System size

____ System owner/operator data

____ System treatment data

___ System location data

___ Source location data (e.g., well latitude/longitudes)

___ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Type of violation

___ Date of violation

___ Parametric data (e.g., limit; level measured)

___ Capable of storing multiple violations of same type

___ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

___ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Current enforcement actions

___ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules
____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

____ Ground

____ Surface

____ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

____ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

____ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

___ Standard printed reports

___ Ad-hoc on screen reports

___ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

The state has the following hardware available for use in developing an information tracking system.

5.1.1. Centralized

___ Mainframe

_X_ Minicomputer

Honeywell DPS-6

_X_ PC

386 Machine

___ Other

5.1.2. Distributed

_X_ PC network Network type: **Novell**

___ PC/minicomputer networkNetwork type:

___ PC/mainframe networkNetwork type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

The following software would be used to support the above listed hardware.

System software:

Applications software: **ORACLE DBMS for the Minicomputer; dBASE III+ for the PC**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Terry Fields**

Address: **Data Processing Unit (for information regarding the minicomputer)**

Telephone: **(602) 257-6945**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Did the interviewee attend the FRDS II interactive retrieval training?

Inventory Form
State Drinking Water Information Systems

Arkansas

1. Background Information

1.1. Tracking number for this interview form: **AR1**

1.2. Information system identification

1.2.1. Official name of system: **Public Water System Inventory**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Arkansas**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Harold Seifert**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Division of Engineering**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **4815 W. Markham**
Little Rock, Arkansas 72205-3867

1.4.4. Interviewee's telephone number: **(501) 661-2623**

1.4.5. Backup contact:

2. **For which purposes is the system used (put an "X" next to all that apply.)**

__X__ Inventories of water systems

__X__ Compliance (e.g., tracking violations; tracking inspections)

The system stores the last 12 months of compliance history. A violation flag indicates compliance or noncompliance for each parameter in the system.

__X__ Enforcement (e.g., enforcement histories)

Minimal enforcement information is maintained in a separate Lotus 1-2-3 file on a PC.

__X__ Mailings support (e.g., generation of mailing labels; production of warning letters)

____ Fee tracking

____ Tracking of submission of required reports on monitoring

____ Tracking of submission of other required reports

____ General administration

____ Uploading to FRDS

____ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

____ Others

3.2 Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

____ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3 Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

Inventory and violation data are in two interactive databases. PWS ID#s and Customer #s are used to interrelate the information. Separate programs, written in Basic, access the data as needed.

__X__ Type of violation

__X__ Date of violation

____ Parametric data (e.g., limit; level measured)

____ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

__X__ SNCs (also see next question)

The system can generate a SNC report.

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

Stored in Lotus 1-2-3 file on PC.

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

CWS data is collected from the field by the State Department of Health.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

NCWS data is submitted by local Health Departments and central office staff.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

Region can dial into State inventory system.

__X__ Diskette delivered to EPA Regional Office

Compliance information is delivered to Region VI in disk form.

__X__ Other

Enforcement actions and inventory are delivered to Region VI in hard copy.

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

__X__ Other

Compliance data is delivered to Region VI in dBASE. Inventory and enforcement data is delivered to the Region in hard copy.

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

Inorganic and water biology laboratories use the system for mailing addresses.

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

__X__ Minicomputer

WANG VS 5000

___ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer networkNetwork type:

___ PC/mainframe networkNetwork type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **WANG Operating System**

Applications software: **BASIC**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

Contains limited documentation on query and report access capabilities.

____ Training material

__X__ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

The Data Processing section will develop a new inventory system on the WANG. The system will be a relational database, using either Pace or Cobol software.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

BASIC does not lend itself to routine user access; it is not compatible with other languages.

7. Miscellaneous

7.1. Does the interviewee use FRDS

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

California

1. Background Information

1.1. Tracking number for this interview form: **CA1**

1.2. Information system identification

1.2.1. Official name of system: **State Water Evaluation E..... P..... System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **SWEEPS**

1.2.4. State: **California**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Mark Rathbun**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Health and Welfare Data Center

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **2151 Berkley Way**
Berkley, CA 94704

1.4.4. Interviewee's telephone number: **(415) 540-2186**

1.4.5. Backup contact: **Duncan Wilson (for "SWEEPS" information)**

Control of PWSs currently resides with both County and State District offices. The 58 Counties oversee small PWSs, and the 14 District Offices are generally responsible for large PWSs. The information contained in this inventory form references a popular County system and a new District system. New legislation scheduled to go in effect will give the State control over all PWSs. The State will then be in a position to implement a common data management system.

District offices will be using a mainframe system that is currently under development by the State. Offices will access the mainframe via terminals with dedicated lines. Information regarding this new system is printed in italic type.

Each of the Counties independently decides what type of information system to use. Many of the counties use "SWEEPS", a system developed and maintained by a private contractor. SWEEPS, previously available on only a mainframe, has now been adapted for microcomputer use. This is enabling many more counties to use SWEEPS, and it is now in use by most Counties. Information in this inventory form pertaining to SWEEPS is printed in standard type.

Where an "X" is checked and no comment is provided, both systems have that capability.

2. For which purposes is the system used? (put an "X" next to all that apply.)

_X_ Inventories of water systems

_X_ Compliance (e.g., tracking violations; tracking inspections)

_X_ Enforcement (e.g., enforcement histories)

_X_ Mailings support (e.g., generation of mailing labels; production of warning letters)

_X_ Fee tracking

This capability is planned for the implementation after the system is developed.

_X_ Tracking of submission of required reports on monitoring

The system for District Offices will have this capability.

___ Tracking of submission of other required reports

___ General administration

___ Uploading to FRDS

___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

The system for District Offices will have this capability.

___ System administration data

The system for District Offices will have this capability.

__X__ Demographics (e.g., population served)

The system for District Offices will have this capability.

__X__ System size

The system for District Offices will have this capability.

__X__ System owner/operator data

The system for District Offices will have this capability.

__X__ System treatment data

The system for District Offices will have this capability.

__X__ System location data

The system for District Offices will have this capability.

___ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

The system for District Offices will have this capability.

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

The system for District Offices will have this capability.

__X__ Date of violation

The system for District Offices will have this capability.

__X__ Parametric data (e.g., limit; level measured)

The system for District Offices will have this capability.

__X__ Capable of storing multiple violations of same type

The system for District Offices will have this capability.

__X__ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

The system for District Offices will have this capability.

__X__ MCL violations

The system for District Offices will have this capability.

__X__ SNCs (also see next question)

This capability is planned for the implementation after the system is developed.

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

The system for District Offices will have this capability.

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

The system for District Offices will have this capability.

__X__ Progress in meeting compliance schedules

The system for District Offices will have this capability.

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

The system for District Offices will have this capability.

__X__ Summaries of results of inspections

The system for District Offices will have this capability.

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

The system for District Offices will have this capability.

__X__ Surface

The system for District Offices will have this capability.

__X__ Purchased

The system for District Offices will have this capability.

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

__X__ Financial data (e.g., fees)

The system for District Offices will have this capability.

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Data will be sent directly from laboratories to headquarters via a local area network.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Counties send data on floppy disks in ASCII format to headquarters.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

____ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

___ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

Well ID numbers are subject to a validity check by the system.

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

The new system for the district offices will send data to FRDS-II in DTF.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

The system for District Offices will have this capability.

__X__ Standard printed reports

The system for District Offices will have this capability.

__X__ Ad-hoc on screen reports

The system for District Offices will have this capability.

__X__ Ad-hoc printed reports

The system for District Offices will have this capability.

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

__X__ Telephone support

The system for District Offices will have this capability.

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe ***IBM with terminals and emulation stations***

___ Minicomputer

__X__ PC **Some County offices have microcomputers**

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **DOS for microcomputers**
IBM operating system for the mainframe

Applications software: **Both SWEEPS and the *mainframe system under development* use FOCUS software.**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

The new mainframe system will have a Data Element Dictionary, capture screens, and data value descriptions.

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Did the interviewee attend the FRDS II interactive retrieval training?

Inventory Form
State Drinking Water Information Systems

Colorado

1. Background Information

1.1. Tracking number for this interview form: **CO1**

1.2. Information system identification

1.2.1. Official name of system: **Colorado Drinking Water Compliance System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Colorado**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Dave Rogers**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Colorado Department of Health
Water Quality Control Division
Drinking Water Program

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **4210 East 11th Avenue**
Denver, Colorado 80220

1.4.4. Interviewee's telephone number: **(303) 331-4554**

1.4.5. Backup contact:

2. **For which purposes is the system used (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- ___ Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  The system generates mailing labels.
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- ___ System size
- X System owner/operator data

__X__ System treatment data

__X__ System location data

____ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

The system can sort on different fields to produce lists of violations.

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?
No

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

Dating back to about 1985.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Laboratories send sample results to the central office.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Inspection data arrives from regional offices.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

Staff spot checks data input.

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

_X_ Diskette delivered to EPA Regional Office

Planning on installing a direct communications line to NCC in the near future.

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

_X_ Card image. If card image, check those that apply:

_X_ We are currently converting to DTF.

Inventory, bacti, and turbidity are uploaded in FRDS 1.5 format. The Department plans to convert to DTF by the end of 1991.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Chemical and enforcement data is currently transferred in DTF using the FRDS-DE program. Once this system, which is just being installed, is complete, uploads will be sent in DTF by the system.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

Other offices request data in hard copy or on diskette. There are no other interactive users of the system.

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

CompuAdd 286, COMPAQ 386

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer networkNetwork type:

____ PC/mainframe networkNetwork type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: MS-DOS

Applications software: dBASE IV

5.3. What types of documentation are available to support the system?. (Put an "X" next to all that apply.)

____ User's manual

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

X Yes, there are changes planned.

The new system, which includes the revised reporting requirements, will be in place by the summer of 1991.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

X Is the system run on public domain applications software?

X Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

X What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

4 to 5 megabytes.

X What is least amount of memory required for the system to run?

(NOTE: dBASE usually requires 640 kilobytes of RAM to operate.)

___ What are the current storage requirements for the system's data?

The Department has 30 megabyte hard disks.

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

X What is the size of the current staff to support application

1 part-time administrator, 4 technicians/users, and 1/2 employee for data entry.

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS

____ Yes, the interviewee personally uses FRDS

Frequency: **Used only once**

Main purpose(s): **Training**

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Connecticut

1. Background Information

1.1. Tracking number for this interview form: **CT1**

1.2. Information system identification

1.2.1. Official name of system: **Violations**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Connecticut**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health Services

1.3 Name of interviewer: **Milenko Ralich**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Joy Zocco**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Data Processing Section**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **150 Washington Street**
Hartford, CT 06106

1.4.4. Interviewee's telephone number: **203-566-5049 (x1272)**

1.4.5. Backup contact:

2. **For which purposes is the system used (put an "X" next to all that apply.)**

__X__ Inventories of water systems

__X__ Compliance (e.g., tracking violations; tracking inspections)

Compliance information data entry began five months ago.

____ Enforcement (e.g., enforcement histories)

Enforcement actions can be described in text fields associated with violation fields.

____ Mailings support (e.g., generation of mailing labels; production of warning letters)

Planned for the future.

____ Fee tracking

____ Tracking of submission of required reports on monitoring

Planned for the future.

____ Tracking of submission of other required reports

____ General administration

____ Uploading to FRDS

____ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

__X__ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

____ System treatment data **(Planned)**

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

____ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

Future plans for the system include the ability to identify exceptions, or sample results that would normally be considered violations. The responsible engineer would then have the option of allowing the exception without creating a violation, or not allowing the exception and creating a violation. Engineers would also have the opportunity to have a form letter generated by the system to those PWSs with exceptions or violations.

__X__ Monitoring/reporting violations

__X__ MCL violations

__X__ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

The system currently flags repeat non-compliers. A method of flagging SNCs will beadded in the future.

How are SNCs defined in this system?

____EPA definition

__X__ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

Enforcement actions starting in mid-1990 are stored.

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

____ Summaries of results of inspections **(Planned)**

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

The system maintains data on inactive PWSs, town population data across several years, violation tracking, and has the capability of storing prior lab tests (although not yet in use).

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded **(beta testing)**

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

__X__ Inspection Review

On-line verification

____ By repeat query

__X__ By edit-checking

There are programs that look for obvious, out-of-range errors.

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

The Department currently uses the FRDS-DE program to upload data to FRDS. They plan on using the program until their own system is updated, holds all the information required by FRDS-II, and is able to upload into DTF.

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. **User issues**

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

__X__ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

Epson and Compaq

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Banyon**

____ PC/minicomputer networkNetwork type:

____ PC/mainframe networkNetwork type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE III**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

An information package, consisting of instructions and examples of the screens has been developed.

__X__ Training material

__X__ System administration manual

__X__ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Connie Healy**

Address: **Water Supply**

Telephone: **(203) 566-1253**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

The system includes most of the required fields. All required fields will be in place as the system is upgraded.

____ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

The system will be upgraded to allow for many of the changes indicated in this inventory. The Health department estimates that it will take approximately two years before all the changes are made.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

Developed in-house.

__X__ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

Enough to cover costs of media and technical assistance.

__X__ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

The total storage for both the system and data is currently 10 megabytes (full-scale 44 megabytes).

__X__ What is least amount of memory required for the system to run?

5 megabytes.

__X__ What are the current storage requirements for the system's data?

20 megabytes.

__X__ What degree of modulariry (e.g., substantial use of table-driven software) is there in the system?

dBase development consists almost entirely of modules.

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application?

Technical support - one systems analyst.

6. **What are the interviewee's perception of system's strengths and weaknesses?**

Each engineer uses it several times a day. The system has the potential to eliminate much of the current need for storage of (paper) records.

7. **Miscellaneous**

7.1. Does the interviewee use FRDS

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Delaware

1. Background Information

1.1. Tracking number for this interview form: **DE1**

1.2. Information system identification

1.2.1. Official name of system: **FRDS II**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Delaware**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health and Social Services

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Jack Pingree**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Public Health, Bureau of Environmental Health, Office of Sanitary Engineering

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 637**
Dover, Delaware 19903

1.4.4. Interviewee's telephone number: **302-739-5410**

1.4.5. Backup contact: **Jeff Beaman**

2. **For which purposes is the system used (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- ___ Mailings support (e.g., generation of mailing labels; production of warning letters)

  Mailings support is done manually.

- ___ Fee tracking
- ___ Tracking of submission of required reports on monitoring

  Tracking of submission of required reports on monitoring is done manually.

- ___ Tracking of submission of other required reports

  Tracking of submission of other required reports is done manually.

- ___ General administration
- X Uploading to FRDS
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size

2

_X_ System owner/operator data

_X_ System treatment data

_X_ System location data

_X_ Source location data (e.g., well latitude/longitudes)

The system has limited source location data.

_X_ Sanitary Surveys

Selected data from sanitary surveys is maintained, but no narrative.

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Type of violation

_X_ Date of violation

___ Parametric data (e.g., limit; level measured)

Parametric data is maintained manually.

_X_ Capable of storing multiple violations of same type

_X_ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

The system may have the capability to identify or flag violations, but the office is not aware of how to use it.

___ Monitoring/reporting violations

___ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?
No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

____ Historical enforcement actions (or profiles)

Historical enforcement action data is maintained manually.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

Compliance scheduling is done manually.

__X__ Progress in meeting compliance schedules

Progress in meeting compliance schedules is tracked manually.

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

Violations data gathered from inspections is maintained in the system.

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

____ Purchased

There is very little purchased water in Delaware.

3.8 What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9 What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Historical violations and chemical data are maintained in the system.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

The system is being upgraded to be able to electronically upload data.

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

__X__ Other

The regional offices review the data.

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Removing some bugs and entering data.

Was the conversion fully successful?

Yes

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

____ Standard printed reports

____ Ad-hoc on screen reports

____ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

__X__ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

__X__ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

IBM

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer networkNetwork type:

__X__ PC/mainframe networkNetwork type: **Banyon**

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **FRDS-DE**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

Selected information from the FRDS II training manual is used for user support.

__X__ Training material

____ System administration manual

____ Technical guide

____ Annotated code

__X__ Other

FRDS-DE training session.

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Same**

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

The office is in the process of having a consultant upgrade the system to have the ability to electronically upload data from both the laboratories and the regional offices. With the upgrade, they also hope to have more people actually entering data and be able to interface with the laboratories and regional offices. The system will also be able to track trends and produce reports.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system?

If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

_X_ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

Using the FRDS-DE program.

___ Are there any other factors not yet discussed?

_X_ What is the size of the current staff to support application

One employee with only 15-20 minutes per month for the input of data; there will be more when the upgrade is complete.

6. What are the interviewee's perception of system's strengths and weaknesses?

The system has a useful way to maintain data, but manuals are too much material to sort through. The office wants to be able to save the data automatically under the date entered.

7. Miscellaneous

7.1. Does the interviewee use FRDS

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

_X_ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Florida

I. Background Information

1.1. Tracking number for this interview form: **FL1**

1.2. Information system identification

1.2.1. Official name of system: **PWS Data Base**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Florida**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Regulation

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Kenna Study**

1.4.2. Interviewee's Agency/Office: **Drinking Water**

1.4.2.1. State agency/office/division (or branch): **Dept. of Environmental Regulation**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **2600 Blairstone Road**
Tallahassee, FL 32399-2400

1.4.4. Interviewee's telephone number: **(904) 487-1762**

1.4.5. Backup contact:

2. **For which purposes is the system used (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  The system automatically produces letters to PWSs in violation.
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.).

- X CWSs
- X NTNCs
- X NCWSs
- X Others

  The PWS system is capable of tracking non-public water systems from information supplied by counties. This information is used by the counties for their own tracking efforts.

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)

X System size

X System owner/operator data

X System treatment data

X System location data

X Source location data (e.g., well latitude/longitudes)

X Sanitary Surveys

X Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Type of violation

X Date of violation

X Parametric data (e.g., limit; level measured)

The system maintains parametric data for all types of violations. In addition, all laboratory data must be accompanied by a certified laboratory identification number or the data will be rejected.

X Capable of storing multiple violations of same type

X Capable of storing multiple violations of different types

3.3.1. X Is the system capable of identifying or flagging violations

X Monitoring/reporting violations

X MCL violations

X SNCs (also see next question)

The system can generate SNC reports for the previous 12-month period.

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?
No

How are SNCs defined in this system?

__X__ EPA definition

Florida is currently using EPA's old definition. They plan on reprogramming the new three-tier definition by December 1991.

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

Florida can modify the program to use stricter compliance limits for three contaminant types: trihalomethane, Chem/Rads, and bacti. The capability to easily alter limits for other contaminants is planned for the future.

__X__ Progress in meeting compliance schedules

There are several free-form screens where comments regarding a water system's ability to meet compliance schedules can be made.

__X__ Variances

__X__ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

Reports based on the last inspection date are generated to identify water systems due for inspection.

__X__ Summaries of results of inspections

Summary reports are kept in comment fields.

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

____ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency that manages the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Sampling data is delivered to the field offices from laboratories or drinking water systems with their own laboratories for on-line entry. Inventory information is entered into the PWS database directly by the seven district and 10 approved county offices. (The 10 approved counties are part of Florida's Health Department.)

__X__ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

_X_ On-line (key) data entry

Information sent to the State offices (district and county) is entered on-line.

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

_X_ 2nd party review

High and low values are manually reviewed from hard copy.

___ Confirmation by water system that supplied data

On-line verification

_X_ By repeat query

MCL violations flash on-screen when entered.

_X_ By edit-checking

_X_ Other

There are on-line transaction edits before storing some data.

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

_X_ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion? **Minor**

Was the conversion fully successful?

Discovered in February 1991 that the state violation conversion to federal violations was not working properly.

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

_X_ Telephone support

_X_ Other

Annual training and manual updates.

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state **Can only view and request reports.**

__X__ Other states **Request reports.**

__X__ Other **Public - request reports.**

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe

UNISYS 2200; Florida uses dedicated lines exclusively for security reasons. The system previously ran on a Sperry 1193.

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer networkNetwork type:

____ PC/mainframe networkNetwork type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **UNISYS OS-2200**

Applications software: **COBOL**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

__X__ Training material

__X__ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Greg Knobel**

Address: **Administrative and Technical Services Division**

Telephone: **(904) 488-0892**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

With the adoption of the TCR, masssive changes planned.

5.5.2. What other changes are planned for the system?

Automated tracing and invalidation of samples under new coliform rule requirements. When the surface water treatment rule becomes effective, the sampling protocol will be altered to recognize plant requirements.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

Exact system size is not available. There are over 300,000 records.

____ What is least amount of memory required for the system to run?

__X__ What are the current storage requirements for the system's data?

276 megabytes are currently required for data storage.

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The system contains about four times the information needed for FRDS which is used at the State level. The interviewee's perception is that the system is very good and that there should be more automation.

7. Miscellaneous

7.1. Does the interviewee use FRDS

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Georgia

1. Background Information

1.1. Tracking number for this interview form: **GA1**

1.2. Information system identification

1.2.1. Official name of system: **Georgia Drinking Water Database System**

1.2.2. Common name (if different): **WATSUP (Program Name)**

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Georgia**

1.2.5. Name of state agency that maintains and operates the system:

Georgia Department of Natural Resources

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Paul Arnold**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Environmental Protection Divison
Drinking Water Program

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **205 Butler Street, SE**
Floyd Tower East, Suite 1066
Atlanta, GA 30334

1.4.4. Interviewee's telephone number: **(404) 656-4807**

1.4.5. Backup contact: **Doug Davenport**

2. **For which purposes is the system used (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS

Inventory data is maintained using the PRIME system; violation data is maintained on a PC using the program Clipper.

- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

A program must be run against the data to generate lists of microbiological violations.

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC? No

How are SNCs defined in this system?

__X__ EPA definition

The EPA definition of SNC as of April 1990 is used to determine SNCs.

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

Enforcement information is on microcomputers in the Clipper Program.

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

Compliance schedules for microbiological violations only are in the system. Most other compliance data is tracked manually at the regional level.

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

The State does most of the laboratory work for PWSs and has a system to store data and print reports on the PRIME system. The other laboratories do not have direct access and some data is received from the systems themselves.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

__X__ 2nd party review

__X__ Confirmation by water system that supplied data

On-line verification

There is on-line verification data QA/QC for microbiological data.

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

The data is sent via modem directly to NCC.

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

As of October 1, 1990, all transfers will be in DTF. Conversion and testing are complete.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

Ad hoc reports are available only with programming.

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

__X__ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

__X__ Minicomputer

PRIME 2755: access via terminals.

____ PC

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell; this will Ethernet.**

__X__ PC/minicomputer networkNetwork type: **Twisted Pair**

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **Primos**

Applications software: **Info**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

____ User's manual

____ Training material

____ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Ted Jackson**

Address: **Division of Environmental Protection**

Telephone: **(404) 656-6593**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

Plan to discontinue use of the Clipper Program to maintain enforcement information and develop a proram on the Prime Computer similar to the inventory programs.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

The system uses 8 megabytes of main memory, currently uses 400 to 500 megabytes of disk storage. New regulations will increase need greatly.

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

Many separate databases can be accessed with the INFO program.

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

What are the interviewee's perception of system's strengths and weaknesses?

The Drinking Water Program is setting up a PC network to be tied into the PRIME. There are some problems with down time when the air conditioning is shut off. Prime is unable to interface with other computers and software applications.

7. Miscellaneous

7.1. Does the interviewee use FRDS

_X_ Yes, the interviewee personally uses FRDS

Frequency: **Once per quarter.**

Main purpose(s): **To upload inventory changes and violation data.**

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Did the interviewee attend the FRDS II interactive retrieval training?

Inventory Form
State Drinking Water Information Systems

Hawaii

1. Background Information

1.1. Tracking number for this interview form: **HI1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **WST-BAC., PWS-INV.**

1.2.4. State:

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer:

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Linda Bauer**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Safe Drinking Water Branch**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **5 Waterfront Plaza**
500 Ala Moana Blvd. Ste. 250
Honolulu, HI 96813

1.4.4. Interviewee's telephone number: **808-543-8258**

1.4.5. Backup contact: **David Higa**

The state's sytem is comprised of four databases kept on microcomputers. Three of the databases can be linked by PWS ID number. The fourth system, used to track VOS's and unregulated sample results, can not be interlinked with the others.

2. **For which purposes is the system used (put an "X" next to all that apply.)**

__X__ Inventories of water systems

Inventory information is stored in one of the three interlinkable databases.

__X__ Compliance (e.g., tracking violations; tracking inspections)

A second database tracks bacti and turbidity. The third interlinked database tracks organic, inorganic, and THM violations.

__X__ Enforcement (e.g., enforcement histories)

Enforcement information is tracked for Bacti and turbidity only.

____ Mailings support (e.g., generation of mailing labels; production of warning letters)

____ Fee tracking

____ Tracking of submission of required reports on monitoring

____ Tracking of submission of other required reports

____ General administration

____ Uploading to FRDS

____ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

__X__ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

____ System owner/operator data

____ System treatment data

____ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

Sample results for Bacti and turbidity are entered into the system for some islands. Other islands submit a summary which lists only the instances of violation

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

For the old Total Coliform, turbidity, and Bacti violations only.

__X__ MCL violations

For the old Total Coliform, turbidity, and bacti violations only.

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC? Yes

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

____ Historical enforcement actions (or profiles).

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

__X__ Other

The system can indicate when the last survey was completed.

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

The system stores only the survey date.

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

_X_ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Army and Navy bases and the Honolulu Board of Water Supply submit their own results.

_X_ Data arrives from another agency within the state (e.g., health department)

Some islands have their own labs and submit results on floppy disk. Smaller islands submit hard copy summaries.

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

_X_ Data is electronically uploaded

_X_ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

___ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

___ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

A diskette is delivered directly to PRC, an EPA contractor providing FRDS support.

__X__ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

The Safe Drinking Water Branch uses the FRDS-DE program to upload data to FRDS-II. All relevant information is entered into the FRDS-DE program every quarter.

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

Ad-hoc reports are generated by creating custom dBASE commands and routines.

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

The system is menu driven.

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1.. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

IBM-XT and WANG PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer networkNetwork type:

____ PC/mainframe networkNetwork type:

____ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE III+**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

A set of instructions was written for the bacti and tubidity database part of the system.

___ Training material

___ System administration manual

They believe the system meets the RRR.

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

The Branch currently uses a 20 megabyte hard disk and a Bernoulli box.

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

_X_ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Idaho

I. Background Information

1.1. Tracking number for this interview form: **ID1**

1.2. Information system identification

1.2.1. Official name of system: **Public Drinking Water Supplies**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Idaho**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health and Welfare

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Renee Hardy**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Environmental Quality, Operations Unit

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1410 North Hilton St.**
Boise, ID 83706

1.4.4. Interviewee's telephone number: **(208) 334-5870**

1.4.5. Backup contact: **Steve Dempsey**

Idaho is currently developing a new system to track PWS information. The following inventory fact sheet contains information about this system. The expected completion date for Idaho's new tracking system is December 1991.

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

   _X_ Inventories of water systems

   _X_ Compliance (e.g., tracking violations; tracking inspections)

   _X_ Enforcement (e.g., enforcement histories)

   _X_ Mailings support (e.g., generation of mailing labels; production of warning letters)

   ___ Fee tracking

   _X_ Tracking of submission of required reports on monitoring

   ___ Tracking of submission of other required reports

   _X_ General administration

   _X_ Uploading to FRDS

   ___ Other

3. Data issues

   3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

   _X_ CWSs

   _X_ NTNCs

   _X_ NCWSs

   ___ Others

   3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

   _X_ Source/entity data

   _X_ System administration data

   _X_ Demographics (e.g., population served)

   _X_ System size

   _X_ System owner/operator data

X System treatment data

X System location data

X Source location data (e.g., well latitude/longitudes)

X Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Type of violation

X Date of violation

X Parametric data (e.g., limit; level measured)

X Capable of storing multiple violations of same type

X Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

X Monitoring/reporting violations

X MCL violations

X SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

X EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Current enforcement actions

X Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

_X_ Variances

_X_ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

___ Scheduling of inspections/inspectors

To be determined upon further development.

_X_ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

_X_ Ground

_X_ Surface

_X_ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

VOCs, bacteria, and turbidity.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

_X_ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Inventory information is reported to field offices which then send the data to the main office.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

Data verification methods are undergoing further consideration.

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

Direct connection to NCC.

____ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful? Yes

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC IBM PS 2

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Token Ring**

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE III, Clipper**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

To be developed.

__X__ Training material

__X__ System administration manual

To be developed.

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Steve Dempsey**

Address: **1410 N. Hilton, 2nd Floor**
Boise, ID 83706

Telephone: **(208) 334-0414**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

The system will require 30 megabytes total.

__X__ What is least amount of memory required for the system to run?

640 kilobytes

__X__ What are the current storage requirements for the system's data?

5 Megabytes

__X__ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

Menu-driven software

__X__ Are there any other factors not yet discussed?

Wide-area access

__X__ What is the size of the current staff to support application

16 state-wide

6. **What are the interviewee's perception of system's strengths and weaknesses?**

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Illinois

1. Background Information

1.1. Tracking number for this interview form: **IL1**

1.2. Information system identification

1.2.1. Official name of system: **Sample Automation Facility Evaluation**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **SAFE**

1.2.4. State: **Illinois**

1.2.5. Name of state agency that maintains and operates the system:

Illinois Environmental Protection Agency

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Charles Bell**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Public Water Supplies

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 19276**
Springfield, IL 62794-9276

1.4.4. Interviewee's telephone number: **(217) 785-4653**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- ___ NTNCs
- ___ NCWSs

The State Department of Public Health oversees Non-community water systems.

- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

The system is designed to hold all sample results, however only violation data is input due to resource limitations.

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

The system does not automatically identify radiological reporting violations.

__X__ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No. There is a persistent violator report available for Bacti violations only.

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

The system has the ability to track compliance schedules, but it is not used.

___ Progress in meeting compliance schedules

__X__ Variances

__X__ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

The system maintains historical data on raw water sources and on all certified operations.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

Data is electronically uploaded from laboratory information systems.

__X__ On-line (key) data entry

Bacti data is entered into an entry program which then batch uploads the data.

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

__X__ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

___ By edit-checking

__X__ Other

Data is verified in the field before it is entered into the system.

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

_X_ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion? No

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

There is a very limited on-screen reporting capability.

_X_ Standard printed reports

___ Ad-hoc on screen reports

___ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **IBM 3090**

___ Minicomputer

___ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: **COBOL**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

___ Training material

__X__ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Lou Allyn Byus**

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application?

6. What are the interviewee's perception of system's strengths and weaknesses?

It would be better if the system were on-line and had inquiry capabilities so that regional offices could use it.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Indiana

1. Background Information

1.1. Tracking number for this interview form: **IN1**

1.2. Information system identification

1.2.1. Official name of system: **Drinking Water Information Management System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **DWIMS**

1.2.4. State: **Indiana**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Management

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Linda Edwards**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Drinking Water Branch**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **105 South Meridian**
Indianapolis, IN 46225

1.4.4. Interviewee's telephone number: **(317) 233-4190**

1.4.5. Backup contact:

Indiana is in the process of receiving primacy. As such, they are developing an information management system using dBASE IV. The following information address this dBASE system, although it is not yet complete.

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

   _X_ Inventories of water systems

   _X_ Compliance (e.g., tracking violations; tracking inspections)

   _X_ Enforcement (e.g., enforcement histories)

   _X_ Mailings support (e.g., generation of mailing labels; production of warning letters)

   Fees are tracked through the Board of Health laboratories.

   ___ Fee tracking

   _X_ Tracking of submission of required reports on monitoring

   ___ Tracking of submission of other required reports

   ___ General administration

   _X_ Uploading to FRDS

   ___ Other

3. **Data issues**

   3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

   _X_ CWSs

   _X_ NTNCs

   _X_ NCWSs

   ___ Others

   3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

   _X_ Source/entity data

   ___ System administration data

   _X_ Demographics (e.g., population served)

   _X_ System size

   _X_ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

__X__ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

Some data arrives from the Department of Health.

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

_X_ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

_X_ 2nd party review

This is their current method of QA/QC.

___ Confirmation by water system that supplied data

On-line verification

Repeat query and on-line edit checking will be developed in the future.

___ By repeat query

___ By edit-checking

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

_X_ Data telecommunications (e.g., via modem)

Data will be sent via floppy disk or modem once the system is fully developed. Currently, bacti information is sent to Region V by modem.

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. **System configuration and system management and administration**

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

__X__ PC Epson 286

___ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell**

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE IV**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

___ Training material

__X__ System administration manual

It will meet the revised reporting requirements once complete.

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

__X__ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Iowa

1. Background Information

1.1. Tracking number for this interview form: **IA1**

1.2. Information system identification

1.2.1. Official name of system: **Water Supply Facility List**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **WSFL**

1.2.4. State: **Iowa**

1.2.5. Name of state agency that maintains and operates the system:

Department of Natrual Resources

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Tamie Calef**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Data Processing Bureau**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Data Processing Bureau, IA DNR**
900 East Grand, Wallace Building
Des Moines, IA 50319

1.4.4. Interviewee's telephone number: **(515) 281-8956**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  The WSFL system stores data that computer programs can access to calculate and determine which systems need to be sent "reminder notices" to initiate action.

- X Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- X Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.).

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data

__X__ System treatment data

__X__ System location data **(Nearest city)**

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys **(only inspection date is stored)**

____ Operator Certification

Operator certification information is maintained in a separate database.

__X__ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

____ EPA definition

__X__ State definition

The system does not define SNCs. Iowa attempts to resolve violations before they become SNCs.

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

__X__ Other resources data

Fiscal, personnel and hardware available to operate the system.

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

The system maintains historical data on violations and follow-up actions, monitoring results, monitoring requirements, construction records, and operation permits.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

System data arrives via a 2-year renewable water supply operation permit application from the field directly to the state agency headquarters that manages the system (DNR). Analytical data is sent from the field (system or system's labs) to the University Hygienic Laboratory which is then electronically transmitted to DNR for editing and uploading into WSFL.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

Sample results from the laboratories are electronically uploaded.

__X__ On-line (key) data entry

____ Data is keypunched

__X__ Other

Batch programs are used to load, delete, and modify data.

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

____ 2nd party review

__X__ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

_X_ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ MSIS format. If MSIS format, check those that apply:

There are no major problems with the conversion, except for limited resources. Currently, inventory and source data is sent in FRDS 1.5, while violation and follow-up data is sent in FRDS II. Full conversion of the system to DTF is anticipated by mid-1991.

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

The system is menu driven and displays screen messages.

__X__ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

__X__ Other

EPA Region VII has direct access to view only. Any person or state agency that is connected to the State network may access USFL for view only.

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **IBM 3090**

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **VMS-ESA**

Applications software: **IDMS DATABASE**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

There is a limited amount of training material.

____ Training material

____ System administration manual

____ Technical guide

__X__ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Same**

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

Anticipate full conversion by mid-1991.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

The system operates a 500 cylinder mainframe.

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application

It is projected that approximately two FTEs will be required per year. This estimate ranges from 1-4 people.

6. **What are the interviewee's perception of system's strengths and weaknesses?**

Very use-friendly after initial sign-on.

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Kansas

1. Background Information

1.1. Tracking number for this interview form: **KS1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Kansas**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health and Environment,
Bureau of Water

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Jean Herrold**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Public Water Supply Section**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Forbes Field**
Bldg. #740
Topeka, Kansas 66620

1.4.4. Interviewee's telephone number: **(913) 296-5518**

1.4.5. Backup contact:

Kansas does not have an information system to track PWS. All data is manually tracked and stored. Update information for FRDS-II is sent via hardcopy (card 45) to the Regional Office.

The Word processing center has a mailing list with fees, lab accounts, EPA #, County, and brief description of each PWS. The following capabilities are deroved from this mailing list.

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

___ Inventories of water systems

___ Compliance (e.g., tracking violations; tracking inspections)

___ Enforcement (e.g., enforcement histories)

_X_ Mailings support (e.g., generation of mailing labels; production of warning letters)

_X_ Fee tracking

___ Tracking of submission of required reports on monitoring

___ Tracking of submission of other required reports

_X_ General administration

___ Uploading to FRDS

___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

_X_ CWSs

_X_ NTNCs

_X_ NCWSs

_X_ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Source/entity data

For surface, ground, and purchased surface and ground souces only.

_X_ System administration data

__X__ Demographics (e.g., population served)

___ System size

___ System owner/operator data

___ System treatment data

__X__ System location data

PWS county only.

___ Source location data (e.g., well latitude/longitudes)

___ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Type of violation

___ Date of violation

___ Parametric data (e.g., limit; level measured)

___ Capable of storing multiple violations of same type

___ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

___ Monitoring/reporting violations

___ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Current enforcement actions

___ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

___ Scheduling of inspections/inspectors

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

_X_ Ground

_X_ Surface

_X_ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

_X_ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

_X_ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

___ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

___ By edit-checking

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

__X__ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

__X__ Standard printed reports

___ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

___ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

__X__ PC/mainframe network Network type: **LAN +**

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **DOS**

Applications software: **WordPerfect 5.0**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Steve Brown**

Address: **Data Processing Section**

Telephone: **(193) 296-5612**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

7. Miscellaneous

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Did the interviewee attend the FRDS II interactive retrieval training?

Inventory Form
State Drinking Water Information Systems

Kentucky

1. Background Information

1.1. Tracking number for this interview form: **KY1**

1.2. Information system identification

1.2.1. Official name of system: **MSIS**

1.2.2. Common name (if different): **Kentucky Drinking Water Information System**

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Kentucky**

1.2.5. Name of state agency that maintains and operates the system:

Department of Natural Resources and Environmental Protection

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Vicki Ray**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Division of Water**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **18 Reilly Road**
Frankfort, Kentucky 40601
(502) 564-3410

1.4.4. Interviewee's telephone number: **(502) 564-3510**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports

  The monthly operative report is also tracked.
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others **Semi-public**

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

Operator certification data is included in a separate, menu-driven database but is integrated with the PWS inventory via PWS ID.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No. These indicators are stored in a separate SAS data set and used for persistent violator reports.

How are SNCs defined in this system?

__X__ EPA definition

The old EPA definition is used.

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

The capability of the system to maintain compliance schedules is not fully used.

__X__ Progress in meeting compliance schedules

The capability is not used fully.

__X__ Variances

The system has the capability to maintain variance data.

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

The capability exists, but is not used. Scheduling criteria varies, therefore SAS report programs are used. Schedules are determined by central office.

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Historical data on all categories is maintained.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Information comes via the laboratory. Operating reports are sent to both the main and field office. Most data is entered into the system in the main office.

__X__ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

__X__ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

Input is keyed in by two different operators and electronically compared for discrepancies.

__X__ 2nd party review

Information on violations is checked manually.

___ Confirmation by water system that supplied data verification — On-line

___ By repeat query

___ By edit-checking

_X_ Other

Random audit - data verification

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

_X_ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion? **Yes.**

A new program had to be written. There were many errors due to misunderstanding FRDS II documentation.

Was the conversion fully successful?

___ Other

4. **User issues**

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

____ Standard on screen reports

__X__ Standard printed reports

____ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. **System configuration and system management and administration**

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **IBM 3090**

____ Minicomputer

__X__ PC **(In development)**

____ Other

5.1.2. Distributed

____ PC network Network type:

__X__ PC/minicomputer network Network type: **(In development)**

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: **Structured COBOL for master file and update. SAS for reports or statistical information.**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

The User's Manual is for the original MSIS system, but does not include any adaptations to the program made by the state.

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

_X_ Standard printed reports

___ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

_X_ Mainframe **IBM 3090**

___ Minicomputer

_X_ PC **(In development)**

___ Other

5.1.2. Distributed

___ PC network Network type:

_X_ PC/minicomputer network Network type: **(In development)**

___ PC/mainframe network Network type:

___ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: **Structured COBOL for master file and update. SAS for reports or statistical information.**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

The User's Manual is for the original MSIS system, but does not include any adaptations to the program made by the state.

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Louisiana

1. Background Information

1.1. Tracking number for this interview form: **LA1**

1.2. Information system identification

1.2.1. Official name of system: **Safe Drinking Water Program**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Louisiana**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health and Hospitals

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Mr. Leslie LoMon**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Office of Public Health Engineering

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Room 403**
P.O. Box 60630
New Orleans, LA 70160

1.4.4. Interviewee's telephone number: **504-568-5109**

1.4.5. Backup contact:

The information system as a whole consists of a number of different programs. The mainframe holds bacti data and some inventory information. Chemical data is maintained by chemical laboratories and by the central office on a microcomputer. Inventory information is maintained on the mainframe, but more detailed and up to date information resides on the microcomputer in the main office. The following information, except where noted, pertains to the entire system as a whole.

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

_X_ Inventories of water systems

_X_ Compliance (e.g., tracking violations; tracking inspections)

_X_ Enforcement (e.g., enforcement histories)

_X_ Mailings support (e.g., generation of mailing labels; production of warning letters)

Some mailing support is available, but the resources are not extensive.

___ Fee tracking

___ Tracking of submission of required reports on monitoring

___ Tracking of submission of other required reports

___ General administration

_X_ Uploading to FRDS

Violation data is uploaded in Card 45. Inventory data is uploaded in FRDS II.

___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

_X_ CWSs

_X_ NTNCs

_X_ NCWSs

___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Source/entity data

___ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

There is some limited capability for operator certification information, but it is not used. More extensive data is kept in a separate database and is also tracked by a contractor on PC.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

____ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

Public notification is the only action taken. The state does not have the means to enforce compliance.

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Bacti laboratory results are sent in hard copy to the central office where they are keypunched into the system. Future changes to the system will include bar coded labels on the samples delivered to the laboratories. Labs will then be able to enter a sample result and assign it to the correct PWS by scanning the bar code. This information will then be sent on floppy disk to the mainframe.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Inventory data is sent through the regional office to headquarters.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

____ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

__X__ Other

The inventory system has an internal validity check. Regional database information is compared to current data and checked by hand.

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

_X_ Magnetic Tape to NCC

The magnetic tape is used to update inventory information.

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

_X_ Card image. If card image, check those that apply:

_X_ We are currently converting to DTF.

___ There are problems with the conversion.

The state is waiting for the FRDS-DE program code to upload in DTF. Once received, they can copy the code and the mainframe will no longer be used.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

_X_ Standard printed reports

___ Ad-hoc on screen reports

___ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

_X_ Mainframe **IBM; contains inventory in MSIS**

___ Minicomputer

_X_ PC **EPSON 286. Violation and enforcement data is kept in the microcomputer. A separate inventory kept on the microcomputer is more current than the mainframe copy.**

___ Other

5.1.2. Distributed

_X_ PC network Network type: **PC-LAN (in the central office only)**

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **VMS for the mainframe system; MS-DOS for the PC based system.**

Applications software: **COBOL for the mainframe system; Clipper for the PC based system.**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual **For the mainframe system.**

____ Training material

__X__ System administration manual **For the mainframe system.**

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **J.J. Ray**

Address:

Telephone: **504-508-5100**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

They want to copy a more complete inventory from the Clipper program on the PC to the mainframe, since they update FRDS inventory information from the mainframe. In time, they want to move away from the mainframe system and keep everything on microcomputers. The main advantage of the mainframe now is that it can produce all the bacteriological sample reports that are needed.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

_X_ What is least amount of memory required for the system to run?

640 kilobytes of memory is required for the microcomputer system.

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

The PC is helpful in getting away from the mainframe. The system can generate bar-coded labels for field units to use to identify bacti samples.

Miscellaneous

7.1. Does the interviewee use FRDS?

_X_ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Maine

1. Background Information

1.1. Tracking number for this interview form: **ME1**

1.2. Information system identification

1.2.1. Official name of system: **Drinking Water Program**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **DWP**

1.2.4. State: **Maine**

1.2.5. Name of state agency that maintains and operates the system:

Bureau of Health

1.3 Name of interviewer: **Milenko Ralich (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Lynda Hadsell**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Drinking Water Program
Div. of Health Engineering, DWP

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Division of Health and Engineering**
State House Sta. 10
Augusta, Maine 04333-0010

1.4.4. Interviewee's telephone number: **(207) 289-5683**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- ___ Uploading to FRDS

  This function is not available yet. The FRDS-DE program is used for uploading purposes.

- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others

  Bottled water facilities are also included.

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data

__X__ System treatment data

__X__ System location data **(town located in)**

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

Overdue letters are generated for those who are not in compliance.

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Engineering orders are maintained in the system along with violations, sample results, etc. No data is purged from the system.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

___ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

__X__ By edit-checking

System has ranges of acceptable values for sampling results.

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

The FRDS-DE program is currently used to upload FRDS.

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

All upload files are generated by FRDS-DE program. The state is waiting for information on the exact structure of DTF output to further develop its system.

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

__X__ Other

Information Systems Support Specialist

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

The Eating and Lodging Licensing Agency also uses the system for camp and restaurant data.

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

____ Other

5.1.2. Distributed

__X__ PC network Network type: **New - 3 COM with 29 PCs.**

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS on PCs - OS2 on Server**

Applications software: **dBASE III+**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

__X__ System administration manual

____ Technical guide

___ Annotated code

__X__ Other

Program documentation

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

Formal enforcement actions and automatic determination of violation capabilities need to be added.

5.5.2. What other changes are planned for the system?

Greater system automation is planned.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

__No__ Would the owning state agency charge a fee for a copy or use of the system? if so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

__X__ What is least amount of memory required for the system to run?

640 kilobytes of memory is needed.

__X__ What are the current storage requirements for the system's data?

A 320 megabyte hard drive is available, of which 110 megabytes are presently used by DWP alone.

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

There are currently ten staff members consisting of one data person, two secretaries, and six-seven field staff to manage the systems. Without this information support, the staff would be lost. Increased automation could help to improve the system.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Maryland

1. Background Information

1.1. Tracking number for this interview form: **MD1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Maryland**

1.2.5. Name of state agency that maintains and operates the system:

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **a) Hashem Pezeshki b) Boyd Grove**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Water Supply Program**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **2500 Broening Highway**
Dundalk, MD 21224

1.4.4. Interviewee's telephone number: **(301) 631-3715**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

__X__ Inventories of water systems

__X__ Compliance (e.g., tracking violations; tracking inspections)

__X__ Enforcement (e.g., enforcement histories)

____ Mailings support (e.g., generation of mailing labels; production of warning letters)

This information is contained in a separate R:BASE program running on a microcomputer.

____ Fee tracking

____ Tracking of submission of required reports on monitoring

____ Tracking of submission of other required reports

____ General administration

____ Uploading to FRDS

____ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

Non-community water systems are tracked in a different section of the Water Supply Division than community systems. Both sets of data, however, are tracked with Lotus 1-2-3 software.

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

All of this information is in manual files.

____ Source/entity data

____ System administration data

____ Demographics (e.g., population served)

___ System size

___ System owner/operator data

___ System treatment data

___ System location data

___ Source location data (e.g., well latitude/longitudes)

___ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

Some of the community sample results are kept in Lotus 1-2-3 files.

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

The system cannot identify violations based on a complex determination of what constitutes a violation. It can, however, sort a particular set of data to determine MCL violations.

__X__ Monitoring/reporting violations

__X__ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

All of this data is in manual files.

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

____ Ground

____ Surface

____ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

County health departments send quarterly summaries of those PWSs sampled and any violations to the Water Supply Division.

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

____ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Data is entered into FRDS-DE for the quarterly update to regional offices.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

All reports are generated by printing ranges of Lotus 1-2-3 worksheets.

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

__X__ **PC IBM compatible 286 machine**

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **LOTUS 1-2-3 (Ver. 2.1)**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

__X__ What is least amount of memory required for the system to run?

640 kilobytes

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Massachusetts

1. Background Information

1.1. Tracking number for this interview form: **MA1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Massachusetts**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Protection

1.3 Name of interviewer: **Milenko Ralich (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Karen Doherty**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Division of Water Supply**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1 Winter Street**
Boston, MA 02108

1.4.4. Interviewee's telephone number: **(617) 292-5775**

1.4.5. Backup contact:

Massachusetts DEP currently maintains PWS data in a dBASE III system residing on a network of microcomputers. The following information, in standard print, refers to this current system.

Information in italic print refers to a new system being developed in ORACLE. The new system will have all the capabilities of the current system in addition to the capabilities listed in italics.

2. For which purposes is the system used? (put an "X" next to all that apply.)

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)

  The new system will provide generation of letters and labels to the regional offices, which are responsible for compliance activities.
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- X General administration
- ___ Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

The current system has source/entity data, but it can only be interrelated with inventory information (and not violation data). The new system will have source/entity information.

__X__ System administration data

The new sytstem will contain system administration data.

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

The new system will contain system location data.

__X__ Source location data (e.g., well latitude/longitudes)

The new system will contain source location data.

__X__ Sanitary Surveys

____ Operator Certification

The new system will contain operator certification.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

The new system will be capable of all tracking of the topics listed below. All sample results will be input and the system will automatically identify violations and PWSs in significant noncompliance.

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes

How are SNCs defined in this system?

____ EPA definition

__X__ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

No variances or exemptions are issued by the State.

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

Each region is responsible for its own scheduling.

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Inventory information and sample results are received from each region in hard copy and entered into the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

The new system will allow on-line entry from each regional office. Data not entered by the region will be sent to the central office for entry.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

The new system will have field dependent data verification. Exact details of the files and types of verification are not yet available.

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

The new system will upload all PWS information in DTF.

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

Reporting capabilties for the new system are not fully know at this time.

____ Standard on screen reports

__X__ Standard printed reports

____ Ad-hoc on screen reports

____ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC IBM-Compatible

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Banyon**

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE III+.** ***The new system will be in ORACLE.***

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

____ User's manual

A user's manual will be developed for the new system.

____ Training material

Training material will be developed for the new system.

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Dorothea Williams**

Address: **Water Supply Data Management**

Telephone: **(617) 292-5528**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

There are too many people involved with the current system since it encompasses four separate regional systems and the central office system.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

_X_ Yes, the interviewee personally uses FRDS

Frequency: **Once per quarter.**

Main purpose(s): **To review regional submissions to main office.**

_X_ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Michigan

I. Background Information

1.1. Tracking number for this interview form: **MI1**

1.2. Information system identification

1.2.1. Official name of system: **P22 System - DPS 6**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Michigan**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Karen Kalinowski**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Water Supply, Bureau of Environmental and Occupational Health

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **3423 North Logan**
P.O. Box 30195
Lansing, Michigan 48909

1.4.4. Interviewee's telephone number: **(517) 335-8316**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- ___ Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- ___ Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- X General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others

The system tracks some "Type 3" PWSs -- small systems that do not fall under the Federal definition, but serve more than one household.

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

For community systems only.

____ MCL violations

____ SNCs (also see next question)

Information is downloaded to a dBASE IV program on a microcomputer which can sort and list violations. The lists must then be manually reviewed to determine SNCs.

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

The system tracks how many times PWSs should be and are visited.

__X__ Summaries of results of inspections

The evaluation data is maintained.

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

The system tracks facility details, construction dates, the depth of wells, and other facility information.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Data from state laboratories and district engineers is entered directly into the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

Non-community system information is delivered from local health departments.

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

District engineers and state laboratory personnel enter update information via remote terminal access.

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

_X_ Diskette delivered to EPA Regional Office

Quarterly uploads are sent in DTF format on a floppy disk via FRDS-DE.

___ Other

_X_ Magnetic Tape to Region

Annual inventory uploads are sent on tape once a year.

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

_X_ Card image. If card image, check those that apply:

_X_ We are currently converting to DTF. **(for inventory info)**

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

For violation data, using FRDS-DE.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

One record at a time.

_X_ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

__X__ Minicomputer **Honeywell DPS-6, with PCs that emulate terminals**

____ PC

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell under development for non-community program.**

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **GCOS (mini applications)**

Applications software: **COBOL (mini applications)**

The microcomputers run dBASE IV which is used to generate some ad hoc reports. Chemical sample results are stored in INFO 6, a database package run on the Honeywell.

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Marvin Breedlove**

Address: **Data Processing Center**

Telephone: **(517) 335 8736**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

The system will be upgraded to maintain all required information simultaneously with DTF transfer capability.

5.5.2. What other changes are planned for the system?

Developing an enhanced non-community program. They also want to develop the system to track all monitoring, and are working towards establishing a telecommunications network with local health departments.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

Entire staff can look at the same data and files; the on-line accessibility is very good. There has been some difficulty developing data which is both meaningful to the office and FRDS-compatible--enforcement data is not easily transferable.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Minnesota

I. Background Information

1.1. Tracking number for this interview form: **MN1**

1.2. Information system identification

1.2.1. Official name of system: **No system exists.**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Minnesota**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Doug Mandy**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Environmental Health, Water Supply and Well Management Section, Public Water Supply Unit

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **925 Southeast Delaware**
P.O. Box 59040
Minneapolis, MN 55459-0040

1.4.4. Interviewee's telephone number: **(612) 627-5179**

1.4.5. Backup contact:

2 **There is no information system currently in use in Minnesota. All data is kept manually. They are trying to upload with the FRDS-DE program, but are experiencing a large number of errors. They are planning on developing a system in dBASE IV+, since they own the software. No programming has been done to date. The Department of Health is investigating other State systems and plans on hiring a programmer to help develop and institute a new system.**

2. For which purposes is the system used? (put an "X" next to all that apply.)

___ Inventories of water systems

___ Compliance (e.g., tracking violations; tracking inspections)

___ Enforcement (e.g., enforcement histories)

___ Mailings support (e.g., generation of mailing labels; production of warning letters)

___ Fee tracking

___ Tracking of submission of required reports on monitoring

___ Tracking of submission of other required reports

___ General administration

___ Uploading to FRDS

___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

___ CWSs

___ NTNCs

___ NCWSs

___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Source/entity data

___ System administration data

___ Demographics (e.g., population served)

___ System size

____ System owner/operator data

____ System treatment data

____ System location data

____ Source location data (e.g., well latitude/longitudes)

____ Sanitary Surveys

____ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Type of violation

____ Date of violation

____ Parametric data (e.g., limit; level measured)

____ Capable of storing multiple violations of same type

____ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Current enforcement actions

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

____ Ground

____ Surface

____ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

____ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Eight district offices conduct surveys and forward the information to the central office. Sample results, conducted by the state laboratory, are sent to the district offices where they are included in the survey reports sent to the central office.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

____ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

___ Standard printed reports

___ Ad-hoc on screen reports

___ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

___ PC

___ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell 2.15**

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE IV+**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes.

Did the interviewee attend the FRDS II interactive retrieval training?

No.

Inventory Form
State Drinking Water Information Systems

Mississippi

1. Background Information

1.1. Tracking number for this interview form: **MS1**

1.2. Information system identification

1.2.1. Official name of system: **Region VIII program**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Mississippi**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Leland May**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Bureau of Environmental Health
Division of Water Supply

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 1700**
Jackson, MS 39215-1700

1.4.4. Interviewee's telephone number: **(601) 960-7518**

1.4.5. Backup contact: **Bill Wall**

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)

  The system maintains bacteriological compliance data.
- X Enforcement (e.g., enforcement histories)

  The system maintains bacteriological enforcement data.
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- ___ Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS

  The Division of Water Supply is using the FRDS-DE program.
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- ___ Source/entity data
- X System administration data
- X Demographics (e.g., population served)

__X__ System size

System size data is reported in number of connections.

__X__ System owner/operator data

____ System treatment data

____ System location data

____ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

The system maintains data on the date of the last survey only.

____ Operator Certification

Operator certification data is maintained in a separate file.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

____ Historical enforcement actions (or profiles)

The Division of Water Supply keeps the last two historical enforcement actions in hardcopy.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Inventory information is provided by field engineers.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

____ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

The data must be reentered in FRDS-DE to be sent on diskette.

____ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

There is no conversion in process. All data is re-entered in FRDS-DE.

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

___ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

_X_ PC MEMOREX 386

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **FoxBASE**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

_X_ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

The State has approximately 2000 PWSs and the system is getting us by.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Attended some of the workshop.

Inventory Form
State Drinking Water Information Systems

Missouri

1. Background Information

1.1. Tracking number for this interview form: **MO1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Missouri**

1.2.5. Name of state agency that maintains and operates the system:

Department of Natural Resources

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Patty Purvis**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Public Drinking Water Program

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box A6**
Jefferson City, MO 65102

1.4.4. Interviewee's telephone number: **314-751-8330**

1.4.5. Backup contact:

2. For which purposes is the system used? (put an "X" next to all that apply.)

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- ___ Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- X Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data
- X Source location data (e.g., well latitude/longitudes)

___ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes

How are SNCs defined in this system?

__X__ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

___ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

____ Ground

____ Surface

____ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

____ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

_X_ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

_X_ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

_X_ By edit-checking

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

_X_ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Dual data entry system; new system on PC.

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

____ Standard on screen reports

__X__ Standard printed reports

____ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **With terminal network**

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **Entry Point**

Applications software: **SAS, Answer, dBASE**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

____ User's manual

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

_X_ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

300-350 Megabytes to run

_X_ What is least amount of memory required for the system to run?

150 Megabytes for inventory and comp

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

_X_ Yes, the interviewee personally uses FRDS

Frequency: **Quarterly**

Main purpose(s): **Quarterly Update**

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Montana

1. Background Information

1.1. Tracking number for this interview form: **MT1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Montana**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health and Environmental Sciences

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Jim Melsted**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Water Quality Bureau
Monitoring and Reporting Section

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Cogswell Bldg.**
Room A206
Helena, MT 59620

1.4.4. Interviewee's telephone number: **406-444-2406**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- ___ Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- ___ Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data
- X Source location data (e.g., well latitude/longitudes)

X Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Type of violation

X Date of violation

X Parametric data (e.g., limit; level measured)

X Capable of storing multiple violations of same type

X Capable of storing multiple violations of different types

3.3.1. X Is the system capable of identifying or flagging violations

X Monitoring/reporting violations

X MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes

How are SNCs defined in this system?

X EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Current enforcement actions

___ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

___ Scheduling of inspections/inspectors

_X_ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

_X_ Ground

_X_ Surface

_X_ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

_X_ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

__X__ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

__X__ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

__X__ We are currently converting to DTF.

____ There are problems with the conversion.

Using the new Revelation system.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

_X_ PC IBM 286 & 386

___ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell**

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: MS-DOS

Applications software: Revelation

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

__X__ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Pam Dale**

Address:

Telephone: **406-444-4549**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Nebraska

1. Background Information

1.1. Tracking number for this interview form: **NB1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Nebraska**

1.2.5. Name of state agency that maintains and operates the system:

Nebraska Department of Health

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Scott Peterson**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Drinking Water and Environmental Sanitation

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 95007**
Lincoln, NE 68509

1.4.4. Interviewee's telephone number: **(402) 471-2541**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data
- ___ Source location data (e.g., well latitude/longitudes)

___ Sanitary Surveys

_X_ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Type of violation

_X_ Date of violation

_X_ Parametric data (e.g., limit; level measured)

_X_ Capable of storing multiple violations of same type

_X_ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

___ Monitoring/reporting violations

___ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Current enforcement actions

_X_ Historical enforcement actions (or profiles)

Data is maintained from July 1989.

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

__X__ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

_X_ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

_X_ Input operator review

___ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

___ By edit-checking

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

_X_ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC IBM, System 2, Model 60

____ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: MS-DOS

Applications software: dBASE III+

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

__X__ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

The system is not user-friendly, and there are no verification mechanisms.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

__X__ Yes, the interviewee personally uses FRDS

Frequency: **Once a quarter.**

Main purpose(s): **To transmit data to EPA.**

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Nevada

1. Background Information

1.1. Tracking number for this interview form: **NV1**

1.2. Information system identification

1.2.1. Official name of system: **PWS Compliance Tracking System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Nevada**

1.2.5. Name of state agency that maintains and operates the system:

Department of Human Resources

1.3 Name of interviewer: **Milenko Ralich (Cadmus)2**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Larry Roundtree**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Nevada State Health Division
Consumer Health Protection Services

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **505 East King Street**
Room 103
Carson City, NV 89710

1.4.4. Interviewee's telephone number: **702-687-4750**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- ___ Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  Mailing labels can be printed by the system.
- ___ Fee tracking
- ___ Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- ___ System size
- ___ System owner/operator data
- ___ System treatment data

___ System location data

___ Source location data (e.g., well latitude/longitudes)

_X_ Sanitary Surveys

_X_ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

The system stores microbiological violation and enforcement information only. Other contaminant types are tracked manually.

_X_ Type of violation

_X_ Date of violation

___ Parametric data (e.g., limit; level measured)

For microbiological data only.

_X_ Capable of storing multiple violations of same type

_X_ Capable of storing multiple violations of different types

3.3.1. _X_ Is the system capable of identifying or flagging violations

_X_ Monitoring/reporting violations

For microbiological data only.

_X_ MCL violations

For microbiological data only.

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

For biological data only.

__X__ Historical enforcement actions (or profiles)

For biological data only.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

__X__ Other

All non-biological information is delivered to Region IX in hard copy.

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Biological information is written to a floppy disk in DTF by the system.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

All non-biological information is delivered to Region IX in hard copy.

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

Since the system maintains only biological and inventory data, report contents are limited to biological and inventory information.

_X_ Standard on screen reports

A limited number of reports can be viewed on screen.

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

__X__ PC IBM/AT

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE III**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

The system was developed by Region VIII. The Department is waiting for an upgrade that will track other types of violations and include the VOC, TCR and surface water treatment rule requirements.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

New Hampshire

1. Background Information

1.1. Tracking number for this interview form: **NH1**

1.2. Information system identification

1.2.1. Official name of system: **Drinking Water Program**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **New Hampshire**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Milenko Ralich (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Laurie Cullenof**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Water Supply and Pollution Control Division
Water Supply Engineering Bureau
Division of Environmental Services

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **6 Hazen Drive**
P.O. Box 95
Concord, NH 03302-0095

1.4.4. Interviewee's telephone number: **(603) 271-2923**

1.4.5. Backup contact: **Jim Gill**

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

__X__ Inventories of water systems

____ Compliance (e.g., tracking violations; tracking inspections)

____ Enforcement (e.g., enforcement histories)

The system tracks Bacti information. The Department plans to have the system upgraded within two years to track all sampling and monitoring requirements.

__X__ Mailings support (e.g., generation of mailing labels; production of warning letters)

The system produces labels which the State uses to send out sample collection bottles. Monitoring violation letters are also generated by the system.

__X__ Fee tracking

__X__ Tracking of submission of required reports on monitoring

For Bacti monitoring only.

____ Tracking of submission of other required reports

____ General administration

____ Uploading to FRDS

____ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Source/entity data

__X__ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

____ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

Bacti data is the only information tracked by the system.

__X__ Type of violation

__X__ Date of violation

____ Parametric data (e.g., limit; level measured)

____ Capable of storing multiple violations of same type

____ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Current enforcement actions

Minimal information is maintained on enforcement actions. More information will be maintained in the future when the system is fully upgraded.

___ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

_X_ Scheduling of inspections/inspectors

_X_ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

_X_ Ground

_X_ Surface

_X_ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

The past year's Bacti violations only.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

Data from the information system on the WANG is printed, and manually reentered into the FRDS-DE program. Output data from the FRDS-DE program, in DTF, is then uploaded to the WANG mainframe and sent via a telecommunications line directly to NCC.

____ Diskette delivered to EPA Regional Office

____ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

All uploads are currently done through the FRDS-DE program which is loaded on a WANG microcomputer that is hardwired to the WANG mainframe.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

_X_ Standard printed reports

___ Ad-hoc on screen reports

___ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

The data is also used by the Ground Water Section and the Water Reserve Board.

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **WANG VS 7110 with hardwired terminals.**

____ Minicomputer

__X__ PC **A WANG microcomputer is connected to the mainframe and operates as a stand alone microcomputer and as a mainframe terminal.**

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **WANG operating system.**

Applications software: **PACE management system.**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

____ User's manual

____ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Linda Stafford**

Address: **Water Supply Data Manager**

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

The system is in the early development stages and should be complete within two years. Once completed, the system will track all sampling results and reporting requirements, and generate upload files in DTF.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Did the interviewee attend the FRDS II interactive retrieval training?

Inventory Form
State Drinking Water Information Systems

New Jersey

1. Background Information

1.1. Tracking number for this interview form: **NJ1**

1.2. Information system identification

1.2.1. Official name of system: **New Jersey Public Water System**

1.2.2. Common name (if different): **NJPWS**

1.2.3. Commonly used acronym (if different):

1.2.4. State: **New Jersey**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Protection.

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Vickie Prill**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Water Resources, Bureau of Safe Drinking Water

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **401 E. State Street CN 029**
Trenton, NJ 08625

1.4.4. Interviewee's telephone number: **(609) 292-9979**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- X Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data
- X Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

The system maintains laboratory certification information.

__X__ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

__X__ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

PWSs have the option of deleting the systems' compliance action indicator after they return to compliance. The violation and action data, however, are still maintained by the system.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

___ Scheduling of inspections/inspectors

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

_X_ Ground

_X_ Surface

_X_ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

_X_ Financial data (e.g., fees)

_X_ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

_X_ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

_X_ Data is electronically uploaded

Currently working on direct data entry by laboratories on disk.

_X_ On-line (key) data entry

_X_ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

_X_ Input operator review

Logs are kept. Logs are printed by NSPWS.

_X_ 2nd party review

Review of violation reports.

_X_ Confirmation by water system that supplied data

On-line verification

___ By repeat query

_X_ By edit-checking

Data must fall within reasonable criteria ranges.

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

_X_ Data telecommunications (e.g., via modem)

Transmittal via dedicated line to NCC.

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

Inventory data is transmitted in FRDS 1.5 format. Conversion to DTF is scheduled for early 1991.

__X__ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Violations data is transmitted in DTF.

Were there any problems with the conversion? **No**

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

On-screen access is limited to viewing the raw data files.

__X__ Standard printed reports

____ Ad-hoc on screen reports

Custom printed reports require new SAS routines to be written.

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

__X__ Telephone support

Telephone or electronic mail.

__X__ Other

System Documentation

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

Regional enforcement offices send enforcement actions to be entered into the system.

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **IBM 4381**

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

__X__ PC/mainframe network Network type: **Banyan Vines**

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MVS**

Applications software: **SAS**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

__X__ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address: **Office of Telecommunications and Information Systems**

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

__X__ Yes, the interviewee personally uses FRDS

Frequency: **1/quarter**

Main purpose(s): **Check edit violations in DTF**

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

New Mexico

1. Background Information

1.1. Tracking number for this interview form: **NM1**

1.2. Information system identification

1.2.1. Official name of system: **Drinking Water Database**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **New Mexico**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health and Environment

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Richard Asbury**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Environmental Improvement Division, Drinking Water Section

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 965**
Las Cruces, NM 88004

1.4.4. Interviewee's telephone number: **(505) 524-6300**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- X General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

The system maintains an indicator of whether or not the operator is certified. More in-depth operator information is in a database maintained by the Training and Certification Section.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

__X__ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No. This information is maintained in a separate program.

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

Information can be kept in a "remarks field."

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Chemical sampling histories are kept to 1983.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

State laboratories send sample results directly to the central office.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Sanitary survey information and private laboratory sample results are sent to the central office from the 21 field offices.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

Field offices will occasionally review hard copy data.

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

____ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Violation, envorcement and inventory information is uploaded to FRDS II in DTF.

Were there any problems with the conversion? **No**

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

__X__ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

__X__ PC IBM PS 2, Model 80

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE IV**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

Conversion scheduled for completion in January 1991.

5.5.2. What other changes are planned for the system?

The Department is planning on creating a new system in ORACLE on a minicomputer. This will give them more system strength and allow them to have terminals in the field for increased efficiency. They plan on developing the new system to parallel FRDS II.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

_X_ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

_X_ What is least amount of memory required for the system to run?

640 kilobytes of RAM are required to run dBASE.

_X_ What are the current storage requirements for the system's data?

Data is stored in a 32 megabyte partition on the system hard disk. The exact size is not known.

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application

One administrator and one secretary; neither is full time.

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The system is very good for producing ad-hoc reports very quickly.

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

__X__ Yes, the interviewee personally uses FRDS

Frequency: **Daily**

Main purpose(s): **Input and extract useful data.**

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

New York

1. Background Information

1.1. Tracking number for this interview form: **NY1**

1.2. Information system identification

1.2.1. Official name of system: **Safe Water System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **New York**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Frank Faro**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Center for Environmental Health
Division of Environmental Protection
Bureau of Public Water System Protection
Field Coordination Section

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **NY State Department of Health**
Room 406
1215 Western Avenue
Albany, NY 12203

1.4.4. Interviewee's telephone number: **(518) 458-6731**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X — Inventories of water systems
- X — Compliance (e.g., tracking violations; tracking inspections)
- X — Enforcement (e.g., enforcement histories)
- X — Mailings support

  The system is used to generate mailing labels.
- ___ — Fee tracking
- ___ — Tracking of submission of required reports on monitoring
- ___ — Tracking of submission of other required reports
- ___ — General administration
- X — Uploading to FRDS
- X — Other

  Information for schools and FOIA requests are generated by the system.

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X — CWSs
- X — NTNCs
- X — NCWSs
- ___ — Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X — Source/entity data
- ___ — System administration data
- X — Demographics (e.g., population served)
- X — System size

  The system tracks the size of industrial, residencial, and commercial populations served.

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

__X__ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

____ Parametric data (e.g., limit; level measured)

The system will be upgraded to have the capabiltiy to accept sample results and automatically determine those PWSs in violation.

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

No. Violations are determined manually and then input into the system.

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

Historical enforcement data after 1980 is maitained by the system.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

____ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Hardcopy monitoring and MCL data is sent by PWS's to one of approximately 45 county health departments, or one of the ten State field offices. These offices foward violation information to the central office to be keypunched into the system.

__X__ Data arrives from another agency within the state (e.g., health department)

(see preceding explaination)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

____ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

The system has some edit checking routines to ensure the correct type and range of data.

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

____ Other

__X__ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

__X__ We are currently converting to DTF.

The system is being converted to provide output in DTF. This capability is expected to be available during the second or third quarter of 1991.

____ There are problems with the conversion.

____ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

____ Standard on screen reports

__X__ Standard printed reports

____ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

Ad-hoc reports can be printed by writing new SQL routines.

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe IBM

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: IDMS Database

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

____ User's manual

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Art Venne**

Address:

Telephone: **(518) 473-8142**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application

The current support staeff is approximately 11 FTEs in the central office and the equivelant of 10 FTEs in the District and County offices.

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

North Carolina

1. Background Information

1.1. Tracking number for this interview form: **NC1**

1.2. Information system identification

1.2.1. Official name of system: **Public Water Supply System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **PWSS**

1.2.4. State: **North Carolina**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environment, Health and Natural Resources

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Martha Moore**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Public Water Supply Section**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 27687**
Raleigh, NC 27611-7687

1.4.4. Interviewee's telephone number: **(919) 733-2321**

1.4.5. Backup contact: **John McFadyen**

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS

  By tape (now) - by tape or direct line to NCC (FRDS II)
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys **Dates (now) Dates and reason (FRDS II)**

__X__ Operator Certification **(FRDS II)**

__X__ Entry Point**(FRDS II)**

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

__X__ SNCs (also see next question)**(FRDS II)**

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

____ Progress in meeting compliance schedules

__X__ Variances

__X__ Variance type

__X__ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

__X__ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Historical results of sample analyses, violations, and enforcements.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

_X_ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

_X_ Input operator review

_X_ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

_X_ By edit-checking Some (now) - a lot (FRDS II)

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

_X_ Data telecommunications (e.g., via modem) (FRDS II)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

_X_ Magnetic Tape to NCC(FRDS II)

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

__X__ We are currently converting to DTF.

There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

__X__ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

____ Ad-hoc on screen reports

____ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

__X__ Minicomputer **WANG VS100 with hardwire work stations.**

____ PC

____ Other

5.1.2. Distributed **(Undecided)**

__X__ PC network Network type: **LAN**

____ PC/minicomputer network Network type:

__X__ PC/mainframe network Network type: **Unknown**

____ Other

5.1.3. __X__ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: COBOL

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

__X__ System administration manual

____ Technical guide

____ Annotated code

__X__ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system? **FRDS II Format**

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

__X__ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

Cost of material and time. This would be provided on a time available basis.

____ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system? **300 - 500 MEG**

__X__ What is least amount of memory required for the system to run? **12 MEG**

__X__ What are the current storage requirements for the system's data? **300 MEG**

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application **4**

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

Inventory Form
State Drinking Water Information Systems

North Dakota

1. Background Information

1.1. Tracking number for this interview form: **ND1**

1.2. Information system identification

1.2.1. Official name of system: **Bacteriological Monitoring Program**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **North Dakota**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Jim Allman**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Water Supply and Pollution Control

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1200 Missouri Avenue**
P.O. Box 5220
Bismarck, ND 58502-5520

1.4.4. Interviewee's telephone number: **(701) 224-4558**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  The system can automatically generate letters to PWSs.
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- X General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

The system maintains the date of Bacti violations only.

__X__ Parametric data (e.g., limit; level measured)

The system keeps all sample results for Bacti data only.

__X__ Capable of storing multiple violations of same type

___ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

The system flags Bacti violations only.

__X__ Monitoring/reporting violations

For Bacti violations only.

__X__ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes. The State uses a system of priority points to determine repetitive non-compilers based on the number of violations, the types of violations, and the population served of the PWS in violation.

How are SNCs defined in this system?

___ EPA definition

__X__ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

Historical data is stored for one year.

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

State and PWS laboratories send sample results directly to the central office.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

NCWS information arrives from one of six District Health Offices

___ Data arrives from another agency within the state (e.g., health department).

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

Data is entered on-line into an entry program, and then batch uploaded into the system.

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

__X__ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

___ By edit-checking

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

FRDS uploads are sent via TSO network directly to NCC.

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion? **No**

Was the conversion fully successful? **Yes**

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

The last 12 months of Bacti and Chem/Rad data can be view on screen.

_X_ Standard printed reports

___ Ad-hoc on screen reports

___ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

The system is menu driven and provides explanations to the user with each menu.

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

_X_ Minicomputer IBM

___ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE IV**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

__X__ What are the current storage requirements for the system's data?

About 5 megabytes of storage space are required for the system.

__X__ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application

About 5 FTEs are required to maintain the entire system.

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The system is good because dBASE IV allows a large degree of flexibility and manipulation of data. The system operates slowly, however, because about 775 PWSs are tracked.

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

__X__ Yes, the interviewee personally uses FRDS

Frequency: **2-3 times per quarter.**

Main purpose(s): **To extract data.**

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Ohio

1. Background Information

1.1. Tracking number for this interview form: **OH1**

1.2. Information system identification

1.2.1. Official name of system: **MSIS**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Ohio**

1.2.5. Name of state agency that maintains and operates the system:

Ohio Environmental Protection Agency

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Evelyn Young**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Public Drinking Water

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1800 Watermark Drive**
Columbus, OH 43266-0149

1.4.4. Interviewee's telephone number: **614-644-2752**

1.4.5. Backup contact: **Rick Herron**

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- ___ Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- X General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification **In planning stage**

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

The system can generate a persistent violator report.

__X__ MCL violations

__X__ SNCs (also see next question)

Program in specification phase to generate SNC report

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

Enforcement actions are kept in violation files.

__X__ Historical enforcement actions (or profiles)

The last 3 to 4 fiscal years are kept in the active database. Older data is archived to magnetic tape.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

The system will be able to maintain compliance schedules by mid-1991.

____ Progress in meeting compliance schedules

__X__ Variances

__X__ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

This capability is not used by the State; however, it is currently under evaluation.

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

____ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

PWSs send copies of laboratory reports to the central office.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

5 district offices track Bacti and biological sample results on microcomputers. Hard copies of Bacti and turbidity results are stored at the district office. All other hard copy information is stored at the central office.

__X__ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

____ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

Information is reviewed by a second keypunch operator.

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

_X_ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ MSIS format. If MSIS format, check those that apply:

Inventory data is currently uploaded in FRDS 1.5 format. It will be uploaded in DTF by December 1991.

_X_ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Violation and enforcement data is uploaded in DTF.

Were there any problems with the conversion?

Was the conversion fully successful? **Yes.**

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

_X_ Standard printed reports

___ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

__X__ Telephone support

__X__ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

Other offices request data from the system.

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe

IBM 3090 with hardwired terminals. Access to the IBM is through a UNISYS (Sperry) 7000.

___ Minicomputer

__X__ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: **COBOL**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

__X__ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Rick Herron**

Address: **Ohio EPA, Data and Systems Office**

Telephone: **614-644-2997**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

Ohio EPA plans to update the system to include all revised reporting requirements and automatic identification of violations. They are holding off on these, and other revisions, until the total coliform and surface treatment rules are in effect. This will enable them to consolidate the revision process and conserve resources.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The system functions well, but with the many changes in the drinking water program, it is difficult to stay current.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

_X_ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Oklahoma

1. Background Information

1.1. Tracking number for this interview form: **OK1**

1.2. Information system identification

1.2.1. Official name of system: **Aquarius and Bacti Aquarius**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Oklahoma**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Lisa Richardson (cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Mike Harrell**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Water Quality Service**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1000 NE 10th Street**
Oklahoma City, OK 73152

1.4.4. Interviewee's telephone number: **(405) 271-7352**

1.4.5. Backup contact:

The Aquarius system was originally written for the IBM mainframe and was to encompass the entire information tracking system. A separate Bacti Aquarius program was written to allow the state to meet federal requirements. A third component of the system, maintained on a microcomputer, tracks vulnerability and VOC data. The three components contain a field for PWS ID number, thus enabling each component to be interrelated. The Department plans to move the entire system to a microcomputer network over the next year.

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

   X Inventories of water systems

   ___ Compliance (e.g., tracking violations; tracking inspections)

   X Enforcement (e.g., enforcement histories)

   X Mailings support (e.g., generation of mailing labels; production of warning letters)

   X Fee tracking

   X Tracking of submission of required reports on monitoring

   A separate program on a microcomputer tracks submission of required reports.

   X Tracking of submission of other required reports

   ___ General administration

   X Uploading to FRDS

   ___ Other

3. Data issues

   3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

   X CWSs

   X NTNCs

   X NCWSs

   X Others

   The system tracks smaller, State regulated PWSs that do not fall under federal guidelines.

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

__X__ System administration data

The system stores mailing addresses and telephone numbers.

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

Operator certification is tracked by a different department.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

The system tracks current administrative orders, enforcement actions in progress, and level one violators.

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

The Environmental Health Administration tracks this data.

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

__X__ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

The PC component maintains data on vulnerability and VOC data.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

Data from laboratories is electronically uploaded.

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

Violation information is sent to NCC via modem.

____ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

__X__ Magnetic Tape to NCC

Inventory information is sent to NCC on a magnetic tape.

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

__X__ We are currently converting to DTF.

Violation data is uploaded in Card image. Conversion to DTF should be complete by January of 1992.

____ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

Inventory data is uploaded in FRDS 1.5 format.

__X__ We are currently converting to DTF.

Conversion to DTF should be complete by January of 1991.

____ There are problems with the conversion.

____ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

All reports are generated using EZtreive Plus report writing software.

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

Ad-hoc reporting capabilities require creation of custom dBASE routines

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

The microcomputer component has help screens.

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

____ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **IBM 4381 is used to house the system inventory.**

____ Minicomputer

__X__ PC **Compaq 386 microcomputer network houses the system's violation and enforcement information**

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell**

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS for the microcomputer network**

Applications software: **dBASE III+ for the microcomputer network and COBOL for the mainframe**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

A user's manual exists for the Aquarius mainframe system.

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Ernie Landry**

Address: **Data Processing Section**

Telephone: **(405) 271-4542**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

__X__ What is least amount of memory required for the system to run?

640 kilobytes of RAM are required to run the system.

__X__ What are the current storage requirements for the system's data?

The microcomputer system uses 50 to 60 megabytes of disk storage, 7 of which are to support the network.

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

What are the interviewee's perception of system's strengths and weaknesses?

Interviewee is pleased with PC applications; however, there is little support for mainfraim applications.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Oregon

1. Background Information

1.1. Tracking number for this interview form: **OR1**

1.2. Information system identification

1.2.1. Official name of system: **Safe Water Systems**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Oregon**

1.2.5. Name of state agency that maintains and operates the system:

Department of Human Resources

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Mary Alvey**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Health Division
Office of Environmental Health
Drinking Water Section

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 231**
Portland, OR 97207

1.4.4. Interviewee's telephone number: **(503) 229-5056**

1.4.5. Backup contact: **Vicki King**

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- ___ Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others

The system tracks some smaller systems not covered under Federal regulations.

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size

Tracked in gallons of production.

- X System owner/operator data

X System treatment data

X System location data

X Source location data (e.g., well latitude/longitudes)

X Sanitary Surveys

X Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Type of violation

X Date of violation

X Parametric data (e.g., limit; level measured)

X Capable of storing multiple violations of same type

X Capable of storing multiple violations of different types

3.3.1. X Is the system capable of identifying or flagging violations

X Monitoring/reporting violations

X MCL violations

___ SNCs (also see next question)

The system can sort on violation fields to generate lists of violators.

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

Enforcement actions are stored in a separate dBASE system that is not interactive with the inventory system.

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

The last inspection date is maintained.

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Monitoring and chemical records since 1986 are in the system.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

__X__ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

____ Other

__X__ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ MSIS format. If MSIS format, check those that apply:

Conversion for all data should be complete by January, 1991.

_X_ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Inventory information is uploaded in DTF.

___ Were there any problems with the conversion?

___ Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

_X_ PC

___ Other

5.1.2. Distributed

_X_ PC network Network type: **Novell**

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE III+ (Compiled by Clipper)**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

_X_ User's manual

The user's manual is out of date.

___ Training material

_X_ System administration manual

The system administration manual is out of date.

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

Changes will be complete by January, 1991.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

_X_ Is the system run on public domain applications software?

_No_ Would the owning state agency charge a fee for a copy or use of the system?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

_X_ What is least amount of memory required for the system to run?

640 kilobytes of RAM.

_X_ What are the current storage requirements for the system's data?

Over 40 megabytes of storage are required for the data currently in the system.

_X_ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

Flexible, easy to use & share data; especially geographic data. Close linkage with other systems has not been available.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Pennsylvania

1. Background Information

1.1. Tracking number for this interview form: **PA1**

1.2. Information system identification

1.2.1. Official name of system: **MSIS**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Pennsylvania**

1.2.5. Name of state agency that maintains and operates the system:

Department of Environmental Resources

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Barry Greenawald**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Bureau of Community Environmental Control

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **P.O. Box 2357**
Fifth Floor, Executive House
Harrisburg, PA 17105-2357

1.4.4. Interviewee's telephone number: **(717) 787-0122**

1.4.5. Backup contact: **Bill Sedlak**

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  The system can automatically generate "monitoring reminder notices" which are sent to PWSs.

- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- X General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

__X__ Operator Certification

__X__ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?
No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

___ Scheduling of inspections/inspectors

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

__X__ Financial data (e.g., fees)

Cost estimates of correcting deficiencies and fulfilling "needs"

__X__ Other resources data

Facilities "needs"

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

The system stores historical violation and enforcement data.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Laboratories send chemical sample results to regional offices and to the data management contractor responsible for updating the system.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Inventory and enforcement data is sent to the data management contractor from the regional offices, which are then keypunched into the system.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

Some laboratory data is transmitted on magnetic tape.

___ On-line (key) data entry

__X__ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

__X__ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

__X__ By repeat query

__X__ By edit-checking

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

__X__ Magnetic Tape to NCC

Sent by the data management contractor.

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

__X__ We are currently converting to DTF.

__X__ There are problems with the conversion.

Inventory information is scheduled to be uploaded in DTF by May, 1991.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Violation Data is uploaded in DTF.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

The department can access some inventory data contained in the "Public Water File". This is achieved by downloading the file from the system to a microcomputer, and then using SAS software to review the data.

__X__ Standard printed reports

___ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

_X_ Telephone support

The contractor supplies support when needed by Department staff members.

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

_X_ Other offices within the same state

The Bureau of Laboratories inputs certification data.

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

_X_ Minicomputer WANG-5000

___ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **WANG Operating System**

Applications software: **COBOL**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

The system came with original documentation from the EPA (i.e., for the MSIS system), which has been somewhat updated as changes to the program have been made.

___ Training material

__X__ System administration manual

A systems PWF user manual exists for field and laboratory staff.

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Paul Taylor**

Address: **PRC, Inc. -- Harrisburg**

Telephone: **(717) 657-5090**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

The revisions are almost final. They are currently working through technical and operational problems, and expect the revisions to be final by the Fall of 1991.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

_X_ What are the current storage requirements for the system's data?

The current system uses approximately 700 megabytes.

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

_X_ What is the size of the current staff to support application

3.5 contractor staff and 2.5 state staff.

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The system would be much more useful if there were additional on-line capabilities. As it now stands, they must ask the contractor for any data runs that are not routinely supplied.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

_X_ Yes, the interviewee personally uses FRDS

Frequency: **Once per month.**

Main purpose(s): **Data retrieval.**

___ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Rhode Island

2. Background Information

1.1. Tracking number for this interview form: **RI1**

1.2. Information system identification

1.2.1. Official name of system: **FRDS Inventory System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Rhode Island**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Brian Barrett**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Drinking Water Quality

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Room 209, Cannon Building**
3 Capital Hill
Providence, RI 02908-5097

1.4.4. Interviewee's telephone number: **401-277-3336**

1.4.5. Backup contact: **John Kachanis**

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- X Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- X General administration
- X Uploading to FRDS
- X Other **Data acquisition of laboratory results.**

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- ___ System size
- X System owner/operator data
- X System treatment data
- X System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

Planned for in the future.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes

How are SNCs defined in this system?

__X__ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

__X__ Variances

__X__ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

__X__ Financial data (e.g., fees) **As of 10/1/90**

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Violation information is maintained from 1986.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

State labs enter data on-line. Sample results from private labs are keypunched.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

For state laboratory sample results.

___ On-line (key) data entry

__X__ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

__X__ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

__X__ By edit-checking

Keypunched and electronically uploaded data are subject to edit-checking and range verification routines.

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

__X__ Card image. If card image, check those that apply:

__X__ We are currently converting to DTF.

Inventory information is sent in 1.5 format by the system.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Violation information is entered into the FRDS-DE program and sent in DTF.

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

Reports are generated using a Structured Query Language supported by File Pro, the system software.

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

16 MHZ, Tandy 4000

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Santa Cruz XENIX with 16 users.**

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: **4GL-FILE PRO 16+**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

There are a number of pages assembled that describe the system and are used as training material.

____ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Same**

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

Changes are being held until pending legislation and rule-making procedures are finalized.

5.5.2. What other changes are planned for the system?

The system will be upgraded to generate upload data in DTF. There are also plans to replace the microcomputer network with a larger system, running a UNIX operating system.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

_X_ What is least amount of memory required for the system to run?

640 kilobytes of RAM.

__X__ What are the current storage requirements for the system's data?

There is a 170 megabyte Scuzzi Drive supporting the entire network; however, plans are to upgrade to 1/2 gigabyte soon.

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application?

Three

6. What are the interviewee's perception of system's strengths and weaknesses?

Integrated system design based on FRDS.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

South Carolina

1. Background Information

1.1. Tracking number for this interview form: **SC1**

1.2. Information system identification

1.2.1. Official name of system: **Water Supply Information Management System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **South Carolina**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health and Environmental Control

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Melinda Mathias**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Drinking Water Quality and Enforcement

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **2600 Bull Street**
Columbia, SC 29201

1.4.4. Interviewee's telephone number: **(803) 734-5310**

1.4.5. Backup contact:

2. For which purposes is the system used? (put an "X" next to all that apply.)

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- X Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others

The system tracks small water systems serving populations less than 25.

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

Operator certification is reviewed during sanitary surveys.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

____ EPA definition

__X__ State definition

The State uses a definition stricter than EPA's to avert instances of Federal SNC.

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

Information maintained back to 1984.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Compliance schedules

__X__ Progress in meeting compliance schedules

____ Variances

The system is not programmed for variance/exemption data since the State does not issue them.

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

__X__ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Laboratory data is sent directly to the central office.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Inventory and survey data is sent to the central office in hard copy by 11 regional offices.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

Data is entered on-line into a copy of the system. Updated files are then copied over to the main system.

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

At least 10% of all data entered is reviewed for accuracy.

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

For monitoring data only.

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

__X__ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

Inventory information is now sent in FRDS 1.5 format. Changes to the system are ongoing, and inventory information is expected to be uploaded in DTF by mid-1991.

__X__ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Violations data is uploaded in DTF.

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

The 11 regional offices use data from the system.

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

____ Minicomputer

__X__ PC

IBM microcomputer on a PC network and hardwired to a mainframe.

____ Other

5.1.2. Distributed

__X__ PC network Network type: **Novell**

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **dBASE III+**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

____ User's manual

____ Training material

____ System administration manual

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Steve Vassey (Information System) / Jeff Nuovo (Mainframe System)**

Address: **Division of Drinking Water Quality and Enforcement / Bureau of Information Resource Management**

Telephone: **(803) 734-5310 / (803) 734-4785**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

Most new fields for the revised reporting requirements are already in the system.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

__X__ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

No. A number of other States have copies of and use the system. Other States have built their own systems based on this system design.

____ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

Approximately 6 megabytes.

__X__ What is least amount of memory required for the system to run?

640 kilobytes.

__X__ What are the current storage requirements for the system's data?

22 megabytes are used for current storage.

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The Division feels the system is good. It meets all their needs, and can be programmed by staff members.

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

South Dakota

1. Background Information

1.1. Tracking number for this interview form: **SD1**

1.2. Information system identification

1.2.1. Official name of system: **No system name.**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **South Dakota**

1.2.5. Name of state agency that maintains and operates the system:

Department of Water and Natural Resources

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Rob Kittay**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Office of Drinking Water**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **523 East Capital Street**
Foss Building, Room 412
Pierre, SD 57501-3181

1.4.4. Interviewee's telephone number: **605-773-4208**

1.4.5. Backup contact: **Darron Busch**

Two separate systems, with very similiar capabilities, track PWSs. Community systems (55% of the PWSs in the State) are tracked by a mainframe system, non-community systems (45%) are tracked by a microcomputer system.

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

   _X_ Inventories of water systems

   _X_ Compliance (e.g., tracking violations; tracking inspections)

   _X_ Enforcement (e.g., enforcement histories)

   _X_ Mailings support (e.g., generation of mailing labels; production of warning letters)

   ___ Fee tracking

   _X_ Tracking of submission of required reports on monitoring

   _X_ Tracking of submission of other required reports

   ___ General administration

   _X_ Uploading to FRDS

   ___ Other

3. Data issues

   3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

   _X_ CWSs

   _X_ NTNCs

   There are about 30 NTNC PWSs in the state.

   _X_ NCWSs

   Non-community water systems, which comprise about 45% of all PWSs, are tracked on the microcomputer system.

   ___ Others

   3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

   _X_ Source/entity data

   _X_ System administration data

   _X_ Demographics (e.g., population served)

X System size

X System owner/operator data

X System treatment data

X System location data

X Source location data (e.g., well latitude/longitudes)

X Sanitary Surveys

___ Operator Certification

Operator certification is tracked for all PWSs in a separate dBASE program residing on a microcomputer.

X Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Type of violation

X Date of violation

X Parametric data (e.g., limit; level measured)

X Capable of storing multiple violations of same type

X Capable of storing multiple violations of different types

3.3.1. X Is the system capable of identifying or flagging violations

X Monitoring/reporting violations

X MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes

How are SNCs defined in this system?

X EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

___ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

___ By edit-checking

__X__ Other

Instances of non-compliance are manually checked before NOVs are sent out.

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

For NCWs from the microcomputer system.

___ Other

__X__ Magnetic Tape to Region

For CWSs from the mainframe system.

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Upload information from both systems is currently written in FRDS 1.5 format. The Department is going to expand the microcomputer system to eventually include all PWS data, and will be upgrading it to write files in DTF. The mainframe system phase-out and DTF uploading capabilities are near completion.

Were there any problems with the conversion? **Yes**

Was the conversion fully successful? **Yes**

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

Ad-hoc reports are available from the microcomputer system only.

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

_X_ Mainframe **IBM 3090**

___ Minicomputer

_X_ **PC 386-based machines.**

___ Other

5.1.2. Distributed

_X_ PC network Network type: **Token Ring**

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS for the microcomputer system.**

Applications software: **dBASE for the microcomputer system. AidaBASE is the database structure for the mainframe system. Natural Programming Language is used to access and manipulate the database.**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

_X_ User's manual

For the mainframe system only.

___ Training material

__X__ System administration manual

For the mainframe system only.

____ Technical guide

____ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

The Office of Drinking Water is planning to move all PWS data to the microcomputer system in the future. They feel that programming changes will be easier to implement on a smaller system. This move will encompass changes in upload formatting (to DTF) and will encompass the revised reporting requirements.

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

__X__ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

dBASE requires 5 megabytes of storage. They do not yet know the full size of the system including all programs.

__X__ What is least amount of memory required for the system to run?

640 kilobytes.

__X__ What are the current storage requirements for the system's data?

The system currently uses 8 megabytes of storage, but has less than 70% of the data entered into the system. The system resides on a 300 megabyte hard disk.

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

The PC system is strong.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Tennessee

1. Background Information

1.1. Tracking number for this interview form: **TN1**

1.2. Information system identification

1.2.1. Official name of system: **Tennessee Compliance Tracking System**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Tennessee**

1.2.5. Name of state agency that maintains and operates the system:

Department of Conservation

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Margaret Keck**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch): **Division of Water Supply**

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **150 9th Avenue North, 2nd Floor Terra Bl Nashville, TN 37247-3001**

1.4.4. Interviewee's telephone number: **615-741-6636**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- X Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data

X Source location data (e.g., well latitude/longitudes)

X Sanitary Surveys

X Operator Certification

X Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Type of violation

X Date of violation

X Parametric data (e.g., limit; level measured)

This information is stored in a separate, interrelated database file.

X Capable of storing multiple violations of same type

X Capable of storing multiple violations of different types

3.3.1. X Is the system capable of identifying or flagging violations

X Monitoring/reporting violations

X MCL violations

X SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

X EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Current enforcement actions

X Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

_X_ Variances

This capability is not used by the State.

_X_ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

_X_ Scheduling of inspections/inspectors

This capability is not used by the State.

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

_X_ Ground

_X_ Surface

_X_ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Data files six years old are purged from the system and archived to another microcomputer or a mainframe for storage.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

_X_ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Laboratory data is sent directly to the central office.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Inventory information is gathered by one of four regional offices and then sent to the central office. Non-community water system information is sent in by county health departments.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

__X__ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion? None

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

_X_ Standard on screen reports

R&R Relational Report Writer is used to generate reports. It is fast and user friendly, and can relate up to 10 files for a single report.

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

They are trying to update the system so that other State offices will have access to the data more easily.

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

__X__ PC

IBM NCR 286. The system is loaded on two microcomputers that are hardwired together. Information is updated on one machine, and then batch uploaded to the other.

___ Other -

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS**

Applications software: **FoxBASE+ (Ver. 2.1)**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

_X_ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

_X_ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

_X_ What is least amount of memory required for the system to run?

640 kilobytes

_X_ What are the current storage requirements for the system's data?

Currently using 60 megabytes on an 80 megabyte hard disk.

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

Completely on-line; easy retrieval.

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

__X__ Yes, the interviewee personally uses FRDS

Frequency: Quarterly

Main purpose(s): Check quality of data.

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Texas

1. Background Information

1.1. Tracking number for this interview form: **TX1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Texas**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health, division of Water Hygiene

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Anthony Bennett**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Data Reports and Water Quality Monitoring Branch

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1100 West 49th Street**
Austin, TX 78756

1.4.4. Interviewee's telephone number: **(512) 458-7497**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

__X__ Inventories of water systems

__X__ Compliance (e.g., tracking violations; tracking inspections)

The mainframe system tracks submission of reports and samples for Bacti and turbidity. A separate microcomputer system tracks Chem/Rad data, although this information is reentered into the mainframe system to generate FRDS upload files.

__X__ Enforcement (e.g., enforcement histories)

A separate microcomputer based system (using dBASE III+) will begin to keep enforcement histories in the near future.

__X__ Mailings support (e.g., generation of mailing labels; production of warning letters)

The system can provide mailing support for Bacti monitoring activities.

__X__ Fee tracking

A separate system on the mainframe tracks submission of fees.

___ Tracking of submission of required reports on monitoring

___ Tracking of submission of other required reports

___ General administration

__X__ Uploading to FRDS

___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

__X__ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

__X__ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

___ System location data

___ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

___ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

Multiple violations for the same month are stored as a single violation.

__X__ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

___ Monitoring/reporting violations

___ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Current enforcement actions

___ Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

The system can be used to schedule PWS inspections.

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

__X__ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

__X__ By edit-checking

The system performs random edit checks on Bacti and inventory data.

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

___ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

__X__ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

__X__ We are currently converting to DTF.

__X__ There are problems with the conversion.

There is not yet a date on which conversion will take place. The Department may decide to switch the entire system to a microcomputer based system, although the mainframe would continue to provide mailing support.

___ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

There are a limited number of fields that are eligible to be included in ad hoc reports.

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

___ On-line help screens

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **UNISYS 1100 Series**

___ Minicomputer

___ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **UNISYS Operating System**

Applications software: **COBOL and MAPPER, which is used to access data.**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Bill Hennig**

Address: **Data Processing Section**

Telephone: **(512) 458-7645**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

The revised reporting requirements will be in place by January of 1992.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

_X_ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

The system inventory requires about 4 megabytes of storage each year. Each year's violation data requires about 2 megabytes of storage.

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

_X_ What is the size of the current staff to support application?

About six to eight FTEs are required to fully support the system.

6. **What are the interviewee's perception of system's strengths and weaknesses?**

The system lacks flexibility.

7. **Miscellaneous**

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Utah

1. Background Information

1.1. Tracking number for this interview form: **UT1**

1.2. Information system identification

1.2.1. Official name of system: **Bureau of Water Sanitation System**

1.2.2. Common name (if different): **Ken's system**

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Utah**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Ken Bousfield**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Environmental Health
Bureau of Drinking Water/Sanitation

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **288 North 1460 West**
P.O. Box 16690
Salt Lake City, Utah 84116

1.4.4. Interviewee's telephone number: **(801) 538-6159**

1.4.5. Backup contact:

- **For which purposes is the system used? (put an "X" next to all that apply.)**

  X Inventories of water systems

  X Compliance (e.g., tracking violations; tracking inspections)

  X Enforcement (e.g., enforcement histories)

  X Mailings support (e.g., generation of mailing labels; production of warning letters)

  X Fee tracking

  X Tracking of submission of required reports on monitoring

  X Tracking of submission of other required reports

  X General administration

  X Uploading to FRDS

  ___ Other

3. Data issues

   3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

   X CWSs

   X NTNCs

   X NCWSs

   X Others

   There is a non-public category for systems that are too small to fall under the Federal limits.

   3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

   X Source/entity data

   X System administration data

   X Demographics (e.g., population served)

   X System size

   X System owner/operator data

X System treatment data

X System location data

X Source location data (e.g., well latitude/longitudes)

X Sanitary Surveys

For the most recent survey.

X Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Type of violation

X Date of violation

X Parametric data (e.g., limit; level measured)

X Capable of storing multiple violations of same type

X Capable of storing multiple violations of different types

3.3.1. X Is the system capable of identifying or flagging violations

X Monitoring/reporting violations

X MCL violations

___ SNCs (also see next question)

A dummy file can be created to sort on violation fields and generate a printout of SNCs.

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

Yes

How are SNCs defined in this system?

X EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

__X__ Historical enforcement actions (or profiles)

The system stores the last 3 years of information.

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

__X__ Variances

__X__ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

__X__ Scheduling of inspections/inspectors

This capability is not used.

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Chemical data is available for the last 20 years. Bacteriologic data is available for the most recent one to two year period.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

____ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

The State health lab sends data on magnetic tape.

__X__ On-line (key) data entry

Inventory information is updated on-line. Data from private labs is also updated on-line. They plan to have electronic transfer from private labs by mid-1991.

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

__X__ Data telecommunications (e.g., via modem)

Data is transferred by magnetic tape to a Prime mini computer and then sent by modem to Region VIII.

____ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

____ MSIS format. If MSIS format, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Yes. There were some early problems linking violation and enforcement data.

Was the conversion fully successful? **Yes**

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

Ad-hoc reports require custom programming.

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

Menu-driven with message lines that offer different options the user can take.

____ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

Other offices use the data.

____ Other states

____ Other

System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

____ Mainframe

__X__ Minicomputer **NIXDORF 600/45 with 7 terminals.**

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **Editor operating system.**

Applications software: **EDITOR (same as the operating system).**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

There are several pages that provide an overview of the system and its structure.

____ Training material

____ System administration manual

____ Technical guide

__X__ Annotated code

____ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Same**

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

X Is the system run on public domain applications software?

Utah's public domain

No Would the owning state agency charge a fee for a copy or use of the system?

The department would be willing to share the application software with other state free of charge. They would not be able to provide system support.

___ Would any other fees be required (e.g., for licensing of proprietary software)?

X What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

The system occupies 4.7 megabytes of disk storage.

X What is least amount of memory required for the system to run?

56 kilobytes of RAM.

___ What are the current storage requirements for the system's data?

The system currently uses 34 megabytes of storage for PWS data.

X What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

There are 24 standard tables. More tables can be added as new regulations are passed.

___ Are there any other factors not yet discussed?

X What is the size of the current staff to support application

About 1/4 to 1/2 FTE for administration and 1-1/2 FTE for data entry.

6. **What are the interviewee's perception of system's strengths and weaknesses?**

User-friendy; rarely experience operational problems; easy to train staff on its use.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Vermont

1. Background Information

1.1. Tracking number for this interview form: **VT1**

1.2. Information system identification

1.2.1. Official name of system:

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Vermont**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Milenko Ralich (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Kim Jones**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Environmental Health Division, Water Supply Program

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **60 Main Street**
Box 70
Burlington, VT 05402

1.4.4. Interviewee's telephone number: **(802) 863-7344**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  The system can generate mailing labels and special notices to PWSs.
- X Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data

__X__ System treatment data

__X__ System location data

___ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

___ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

X Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

X Scheduling of inspections/inspectors

X Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

X Ground

X Surface

X Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

X Financial data (e.g., fees)

X Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

X Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

___ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

__X__ By edit-checking

The system has verification checks for field codes used in FRDS.

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion? No

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

___ Telephone support

__X__ Other

On-site support

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

_X_ Minicomputer VAX 8550

___ PC

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: VMS

Applications software: 1032

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

___ User's manual

___ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

Changes will be made to meet TCR/SWTR requirements.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

7. Miscellaneous

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Virginia

1. Background Information

1.1. Tracking number for this interview form: **VA1**

1.2. Information system identification

1.2.1. Official name of system: **FRDS-DE and MSIS**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Virginia**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Evans Massie**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Water Supply and Engineering

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **109 Governors Street**
Richmond, VA 23219

1.4.4. Interviewee's telephone number: **804-786-1756**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

__X__ Inventories of water systems

The MSIS system maintains inventory information.

__X__ Compliance (e.g., tracking violations; tracking inspections)

The Department uses a manual system to track violations, and an "inhouse" automated system to track inspections.

____ Enforcement (e.g., enforcement histories)

____ Mailings support (e.g., generation of mailing labels; production of warning letters)

____ Fee tracking

__X__ Tracking of submission of required reports on monitoring

____ Tracking of submission of other required reports

____ General administration

__X__ Uploading to FRDS

____ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

__X__ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

__X__ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Type of violation

____ Date of violation

____ Parametric data (e.g., limit; level measured)

____ Capable of storing multiple violations of same type

____ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Current enforcement actions

____ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

___ Scheduling of inspections/inspectors

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

_X_ Ground

_X_ Surface

_X_ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

___ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

_X_ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Laboratories send bacti sample data to the regional offices which record the violations and foward a report to the central office.

__X__ Data arrives from another agency within the state (e.g., health department)

Chemical sample results are fowarded directly to the central office by laboratory.

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

____ Data is electronically uploaded

__X__ On-line (key) data entry

For the FRDS-DE program.

__X__ Data is keypunched

For the mainframe system.

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

__X__ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

The Department uses the FRDS-DE program to upoad data to FRDS-II.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

Reports are generated from the mainframe for inventory information.

_X_ Standard on screen reports

_X_ Standard printed reports

_X_ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

_X_ Telephone support

_X_ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

_X_ Mainframe IBM 4381

___ Minicomputer

_X_ PC MEMOREX TELEX 7045

___ Other

5.1.2. Distributed

___ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: **MS-DOS for the microcomputer system.**
HPO-5 for the mainframe system.

Applications software: **Clipper for the microcomputer system.**
COBOL for the mainframe system.

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

_X_ User's manual

___ Training material

_X_ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name:

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

____ There are no changes planned since the system already meets these requirements?

__X__ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

____ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

____ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

They are too far removed from FRDS and cannot use system to help the state with its tracking efforts.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

__X__ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s): Data verification

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Washington

1. Background Information

1.1. Tracking number for this interview form: **WA1**

1.2. Information system identification

1.2.1. Official name of system: **Drinking Water Program**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Washington**

1.2.5. Name of state agency that maintains and operates the system:

Department of Health

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Peggy Johnson**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Environmental Health Program
Division of Drinking Water
Technical Services Section

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Building 3, Airdustrial Park**
Mailstop LD11
Olympia, WA 98504

1.4.4. Interviewee's telephone number: **206-753-3528**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)

  Enforcement data management is a small part of the program.
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- X Others

  The program maintains data on systems that have as few as two service connections or more.

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- X System administration data
- X Demographics (e.g., population served)
- X System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

The system has source location data in terms of township range.

____ Sanitary Surveys

__X__ Operator Certification

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Current enforcement actions

The system handles the entire letter sequence, from warning to formal action letters.

__X__ Historical enforcement actions (or profiles)

____ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Water quality information arrives from the laboratories. Inventory data arrives from the systems themselves.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Some inventory data arrives via Regional offices.

____ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

____ On-line (key) data entry

____ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

__X__ Input operator review

__X__ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

____ Diskette delivered to EPA Regional Office

____ Other

__X__ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

____ Card image. If card image, check those that apply:

____ We are currently converting to DTF.

____ There are problems with the conversion.

__X__ MSIS format. If MSIS format, check those that apply:

__X__ We are currently converting to DTF.

__X__ There are problems with the conversion.

Too many manuals are provided and makes distillation of pertinent information difficult.

____ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

Was the conversion fully successful?

____ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

Ad hoc reporting capabilities are limited by some selection criteria.

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

____ On-line help screens

__X__ Telephone support

____ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

Some local health departments have inquiry access; the Utilities and Transportation Commission has on-line inquiry access as well.

____ Other states

____ Other

5. **System configuration and system management and administration**

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **IBM network with microcomputers**

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software: **Natural**

Applications software: **Adabas**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

____ Training material

__X__ System administration manual **(to be developed by July 1991)**

___ Technical guide

___ Annotated code

_X_ Other

Some resource persons.

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Simon Tung**

Address: **MS LD-11**
Olympia, WA 98504

Telephone: **(206) 586-8733**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

___ There are no changes planned since the system already meets these requirements?

_X_ Yes, there are changes planned.

The new data system will meet the Revised Reporting Requirements.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

_No_ Would the owning state agency charge a fee for a copy or use of the system?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application.

2.5 FTEs are needed to maintain the system; 1.5 data entry employees and one system administrator. Additional programming staff will be used as needed.

6. What are the interviewee's perception of system's strengths and weaknesses?

The systems strength is that Regional offices have access to it. The system is very new and will undoubtedly have "bugs" still to be discovered.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

West Virginia

1. Background Information

1.1. Tracking number for this interview form: **WV1**

1.2. Information system identification

1.2.1. Official name of system: **No system name.**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **West Virginia**

1.2.5. Name of state agency that maintains and operates the system:

Office of Environmental Health Services

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Jan Griffith**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Environmental Engineering Division

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **1900 Kanawha Blvd. East**
Building 3, Room 550
Charleston, WV 26305

1.4.4. Interviewee's telephone number: **(304) 348-2981**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- X Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

- X Source/entity data
- ___ System administration data
- X Demographics (e.g., population served)
- X System size
- X System owner/operator data
- X System treatment data
- X System location data
- ___ Source location data (e.g., well latitude/longitudes)

___ Sanitary Surveys

_X_ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Type of violation

_X_ Date of violation

___ Parametric data (e.g., limit; level measured)

Only those tests resulting in violations are entered into the system.

_X_ Capable of storing multiple violations of same type

_X_ Capable of storing multiple violations of different types

3.3.1. ___ Is the system capable of identifying or flagging violations

___ Monitoring/reporting violations

___ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

___ EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

_X_ Current enforcement actions

_X_ Historical enforcement actions (or profiles)

No old data is erased from the system.

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

____ Compliance schedules

____ Progress in meeting compliance schedules

____ Variances

____ Variance type

____ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

____ Scheduling of inspections/inspectors

____ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

__X__ Ground

__X__ Surface

__X__ Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

____ Financial data (e.g., fees)

____ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

Owner changes and public notification data.

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

Inventory data arrives directly from PWSs.

__X__ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

Violation data is sent in from the 6 district offices.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

_X_ On-line (key) data entry

___ Data is keypunched

___ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

_X_ 2nd party review

_X_ Confirmation by water system that supplied data

On-line verification

___ By repeat query

___ By edit-checking

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

_X_ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

All data is re-entered into the FRDS-DE program and sent to Region III on floppy disk.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

__X__ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

__X__ PC IBM and Zenith

___ Other

5.1.2. Distributed

__X__ PC network Network type:

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: MS-DOS

Applications software: dBASE III+

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

__X__ User's manual

__X__ Training material

___ System administration manual

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: Same

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

__X__ There are no changes planned since the system already meets these requirements?

____ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

____ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

____ Would any other fees be required (e.g., for licensing of proprietary software)?

____ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

____ What is least amount of memory required for the system to run?

____ What are the current storage requirements for the system's data?

____ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

____ Are there any other factors not yet discussed?

__X__ What is the size of the current staff to support application

There is one administrator and four clerks.

6. What are the interviewee's perception of system's strengths and weaknesses?

Lack of human resources.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

__X__ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

____ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

Yes

Inventory Form
State Drinking Water Information Systems

Wisconsin

1. Background Information

1.1. Tracking number for this interview form: **WI1**

1.2. Information system identification

1.2.1. Official name of system: **WATER/ENTRACK**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different):

1.2.4. State: **Wisconsin**

1.2.5. Name of state agency that maintains and operates the system:

Department of Natural Resources

1.3 Name of interviewer: **Martin Rebhun (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Sharon Burbach**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

Division of Environmental Quality
Bureau of Public Water Supplies

1.4.2.2. EPA Region/division/branch/section:

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **Box 7921**
GEF II
Madison, WI 53707

1.4.4. Interviewee's telephone number: **608-266-8696**

1.4.5. Backup contact:

2. **For which purposes is the system used? (put an "X" next to all that apply.)**

__X__ Inventories of water systems

The WATER system tracks inventory data.

__X__ Compliance (e.g., tracking violations; tracking inspections)

____ Enforcement (e.g., enforcement histories)

The ENTRACK system tracks enforcement data.

__X__ Mailings support (e.g., generation of mailing labels; production of warning letters)

____ Fee tracking

__X__ Tracking of submission of required reports on monitoring

____ Tracking of submission of other required reports

____ General administration

__X__ Uploading to FRDS

____ Other

3. **Data issues**

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

__X__ CWSs

__X__ NTNCs

__X__ NCWSs

____ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

____ System administration data

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

____ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

____ Operator Certification

Operator certification is not tracked in the Public Water Section.

____ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

The ENTRACK system tracks violation data.

__X__ Type of violation

__X__ Date of violation

____ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. ____ Is the system capable of identifying or flagging violations

____ Monitoring/reporting violations

____ MCL violations

____ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

How are SNCs defined in this system?

____ EPA definition

____ State definition

____ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

The ENTRACK system tracks enforcement data.

__X__ Current enforcement actions

X Historical enforcement actions (or profiles)

___ Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

___ Compliance schedules

___ Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

___ Scheduling of inspections/inspectors

___ Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

X Ground

X Surface

X Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

___ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

X Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

__X__ Data arrives from another agency within the state (e.g., health department)

The district offices maintain formal violations data in the ENTRACK system.

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

__X__ Data is electronically uploaded

The sample results from State laboratories are electronically uploaded.

____ On-line (key) data entry

__X__ Data is keypunched

____ Other

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

____ Input operator review

____ 2nd party review

____ Confirmation by water system that supplied data

On-line verification

____ By repeat query

__X__ By edit-checking

Edit-checking is done by checking codes and water system ID#s.

____ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

____ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

Both ENTRACK and WATER systems data is sent on diskette to the EPA Regional Office.

____ Other

____ Magnetic Tape to Region

____ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

_X_ FRDS II Data Transfer Format (DTF). If DTF is used:

Were there any problems with the conversion?

There were some initial problems, but the prospects for success look good. The data has to be reformatted to DTF to send.

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

___ Standard on screen reports

_X_ Standard printed reports

___ Ad-hoc on screen reports

_X_ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

_X_ On-line help screens

Both the ENTRACK and WATER systems have on-line help screens.

___ Telephone support

___ Other

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

__X__ Other offices within the same state

Data reports are provided to the Department of Health.

____ Other states

____ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

__X__ Mainframe **IBM. There is an ORACLE Database at HQ with hardwired terminals with IBM access through gateway. There is an IMS Database at the regional center.**

____ Minicomputer

____ PC

____ Other

5.1.2. Distributed

____ PC network Network type:

____ PC/minicomputer network Network type:

____ PC/mainframe network Network type:

____ Other

5.1.3. ____ Hybrid

5.2. In what environment and on what software does the system run?

System software:

Applications software: **ORACLE and IMS Databases**

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

____ User's manual

____ Training material

____ System administration manual

____ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Patrick Powers, Data Coordinator in Bureau of Water**

Address:

Telephone: **608-266-0460**

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

_X_ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

___ Is the system run on public domain applications software?

___ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

___ What is least amount of memory required for the system to run?

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. What are the interviewee's perception of system's strengths and weaknesses?

7. Miscellaneous

7.1. Does the interviewee use FRDS?

____ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

Yes

Did the interviewee attend the FRDS II interactive retrieval training?

No

Inventory Form
State Drinking Water Information Systems

Wyoming

1. Background Information

1.1. Tracking number for this interview form: **WY1**

1.2. Information system identification

1.2.1. Official name of system: **Compliance Tracking System (versions 1 and 2)**

1.2.2. Common name (if different):

1.2.3. Commonly used acronym (if different): **CTS-1 and CTS-2**

1.2.4. State: **Wyoming**

1.2.5. Name of state agency that maintains and operates the system:

EPA Region VIII maintains the system for Wyoming.

1.3 Name of interviewer: **Lisa Richardson (Cadmus)**

1.4. Basic interviewee information

1.4.1. Name of interviewee: **Clint Lemmons**

1.4.2. Interviewee's Agency/Office:

1.4.2.1. State agency/office/division (or branch):

1.4.2.2. EPA Region/division/branch/section:

Region VIII, Water Management Division

1.4.2.3. EPA Headquarters office/division/branch/section:

1.4.3. Interviewee's mailing address: **EPA Region VIII**
999 18th Street, Suite 500
Denver, CO 80202-2405

1.4.4. Interviewee's telephone number: **(303) 294-7118**

1.4.5. Backup contact: **Tom Entzminger, Marshell Pullman**

Region VIII developed and uses the Compliance Tracking System, version 1 (CTS-1) to track Wyoming's PWSs. Several States have received copies of CTS-1 and use the system to track their PWSs. A new system, CTS-2, is currently under development by Region VIII, and is expected to be finished by early 1991. The new system, CTS-2, will incorporate new EPA rules and requirements, and will replace CTS-1. The information contained in this system inventory form pertains to the new system, CTS-2.

2. For which purposes is the system used? (put an "X" next to all that apply.)

- X Inventories of water systems
- X Compliance (e.g., tracking violations; tracking inspections)
- X Enforcement (e.g., enforcement histories)
- X Mailings support (e.g., generation of mailing labels; production of warning letters)

  The system will be able to automatically generate violation letters and mailing labels.
- ___ Fee tracking
- X Tracking of submission of required reports on monitoring
- ___ Tracking of submission of other required reports
- ___ General administration
- X Uploading to FRDS
- ___ Other

3. Data issues

3.1. For which types of PWSs does the system maintain data? (Put an "X" next to all that apply.)

- X CWSs
- X NTNCs
- X NCWSs
- ___ Others

3.2. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Source/entity data

__X__ System administration data

The system maintains data on the congressional district and township of each PWS.

__X__ Demographics (e.g., population served)

__X__ System size

__X__ System owner/operator data

__X__ System treatment data

__X__ System location data

__X__ Source location data (e.g., well latitude/longitudes)

__X__ Sanitary Surveys

___ Operator Certification

___ Entry Point

3.3. Which types of violation information does the system maintain about PWSs? (Put an "X" next to all that apply.)

__X__ Type of violation

__X__ Date of violation

__X__ Parametric data (e.g., limit; level measured)

__X__ Capable of storing multiple violations of same type

__X__ Capable of storing multiple violations of different types

3.3.1. __X__ Is the system capable of identifying or flagging violations

__X__ Monitoring/reporting violations

__X__ MCL violations

___ SNCs (also see next question)

3.3.2. Does the system store an indicator of whether a particular violator is a SNC?

No

How are SNCs defined in this system?

X EPA definition

___ State definition

___ Other definition

3.4. Which types of enforcement information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Current enforcement actions

X Historical enforcement actions (or profiles)

X Other

3.5. Which types of inventory information does the system maintain about PWSs? (Put an "X" next to all that apply.)

X Compliance schedules

X Progress in meeting compliance schedules

___ Variances

___ Variance type

___ Other

3.6. Which types of scheduling capabilities does the system have? (Put an "X" next to all that apply.)

X Scheduling of inspections/inspectors

X Summaries of results of inspections

3.7. What types of water sources are tracked by the system? (Put an "X" next to all that apply.)

X Ground

X Surface

X Purchased

3.8. What types of resource data is tracked by the system? (Put an "X" next to all that apply.)

___ Financial data (e.g., fees)

___ Other resources data

3.9. What types of historical data are maintained in the system? (Please describe. Refer to the categories above, as appropriate.)

3.10. How is data consolidated, transcribed, and prepared for data entry? (Put an "X" net to all that apply.)

__X__ Data arrives directly from the field (e.g., system; systems' laboratories) to the state agency headquarters that manages the system.

___ Data arrives from the field (e.g., system; systems' laboratories) to a regional office, which forwards the information to headquarters where the system is maintained.

___ Data arrives from another agency within the state (e.g., health department)

3.11. Which methods are used to enter data into the system? (Put an "X" next to all that apply.)

___ Data is electronically uploaded

__X__ On-line (key) data entry

___ Data is keypunched

__X__ Other

By the end of 1991, laboratories will submit results to use on floppy disk.

3.12. What are the primary means by which data QA/QC is performed? (Put an "X" next to all that apply.)

___ Input operator review

__X__ 2nd party review

___ Confirmation by water system that supplied data

On-line verification

___ By repeat query

__X__ By edit-checking

The system will contain several edit checking routines including: verification of PWS name and ID number; verification that required data fields are entered; and validity checks for dates.

___ Other

3.13. How data is exported to EPA Regional Offices (for eventual uploading to FRDS)? (Put an "X" next to all that apply.)

___ Data telecommunications (e.g., via modem)

__X__ Diskette delivered to EPA Regional Office

___ Other

___ Magnetic Tape to Region

___ Magnetic Tape to NCC

3.14. In what format is data sent to the EPA for FRDS uploads? (Put an "X" next to all that apply.)

___ Card image. If card image, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

___ MSIS format. If MSIS format, check those that apply:

___ We are currently converting to DTF.

___ There are problems with the conversion.

__X__ FRDS II Data Transfer Format (DTF). If DTF is used:

The system, now under development, will upload files for FRDS in DTF.

Were there any problems with the conversion?

Was the conversion fully successful?

___ Other

4. User issues

4.1. What types of reports are generated for use within the state? (Put an "X" next to all that apply.)

__X__ Standard on screen reports

__X__ Standard printed reports

__X__ Ad-hoc on screen reports

__X__ Ad-hoc printed reports

4.2. What types of support are available to users of the system? (Put an "X" next to all that apply.)

__X__ On-line help screens

___ Telephone support

X Other

Other EPA Regions

4.3. What other users of this system are there? (Put an "X" next to all that apply.)

___ Other offices within the same state

___ Other states

___ Other

5. System configuration and system management and administration

5.1. What is the system's hardware architecture? (Put an "X" next to all that apply.)

5.1.1. Centralized

___ Mainframe

___ Minicomputer

X PC CTS-2 is shared on a local area network using an IBM PS2 model 80 as the file server.

___ Other

5.1.2. Distributed

X PC network Network type: Novell

___ PC/minicomputer network Network type:

___ PC/mainframe network Network type:

___ Other

5.1.3. ___ Hybrid

5.2. In what environment and on what software does the system run?

System software: MS-DOS

Applications software: dBASE IV

5.3. What types of documentation are available to support the system? (Put an "X" next to all that apply.)

X User's manual

A user's manual for CTS-2 will be written.

__X__ Training material

The Region will hold training sessions for States that wish to use the new system.

__X__ System administration manual

There are no plans to write a system administrative manual.

___ Technical guide

___ Annotated code

___ Other

5.4. What is the name of the system administrator (if not the interviewee)?

Name: **Same**

Address:

Telephone:

5.5. Please indicate any of the following changes planned for the system.

5.5.1. Is the system currently being revised to meet the Revised Reporting Requirements?

The new CTS-2 system will meet all Revised Reporting Requirements.

___ There are no changes planned since the system already meets these requirements?

___ Yes, there are changes planned.

5.5.2. What other changes are planned for the system?

5.6. The following are issues pertaining to the transportability of the system. Put an "X" next to those questions for which an answer is supplied.

__X__ Is the system run on public domain applications software?

__No__ Would the owning state agency charge a fee for a copy or use of the system? If so, what amount?

___ Would any other fees be required (e.g., for licensing of proprietary software)?

___ What is the smallest size (megabytes of disk space) that is required for efficient operation of the system?

The system size in not yet known.

__X__ What is least amount of memory required for the system to run?

640 kilobytes of RAM are required to run CTS-2 (dBASE IV).

___ What are the current storage requirements for the system's data?

___ What degree of modularity (e.g., substantial use of table-driven software) is there in the system?

___ Are there any other factors not yet discussed?

___ What is the size of the current staff to support application

6. **What are the interviewee's perception of system's strengths and weaknesses?**

CTS II tracks all EPA requirements including inventory, sources, treatment, site visits, bacteriological, turbidity, and chem/rads. It is geared toward EPA regulations and would require modification by the state to adapt to their particular regulations.

7. Miscellaneous

7.1. Does the interviewee use FRDS?

___ Yes, the interviewee personally uses FRDS

Frequency:

Main purpose(s):

__X__ No, the interviewee does not use FRDS

7.2. Did the interviewee attend the FRDS II training provided by EPA?

No

Did the interviewee attend the FRDS II interactive retrieval training?

No

Appendix A

- Examples of System Output
- Examples of System Architecture
- Tables of Contents from Two User's Manuals

Examples of System Output

WS ID # SURV DATE WATER SYSTEM NAME MAIL BOTTLES TO
POP TELEPHONE

000059 12/19/88 11-W UTILITY DISTRICT Mr. Bill McMurray, M
11-W Utility District
1,106 (615)323-5485 P.O. BOX 264 1458 Harrtown Rd.
BLOUNTVILLE TN 37617 Blountsville TN 3761
OF SERVICES - 402

OUNTY - SULLIVAN (SEASON) BEGIN - END -

SOURCE NAME	AVAIL	LATITUDE	LONGITUDE
BRISTOL WTR DEP	P	- -	- -

TREATMENT

PART. REMOVAL 2	TASTE & ODOR CONTROL	UNTREATED 000

001261 05/16/90 ABRAMS CREEK CAMPGROUND MAINTENANCE DIVISION
GREAT SMOLY MTNS NATIONAL GREAT SMOKY MTNS NATIO
75 (615)436-5615 RT. 2 RT. 2
GATLINBURG TN 37738 GATLINBURG TN 3773
OF SERVICES - 2

OUNTY BLOUNT (SEASON) BEGIN - 0401 END - 1031

SOURCE NAME	AVAIL	LATITUDE	LONGITUDE
WELL	P	035-36-30	083-56-00

TREATMENT

PART. REMOVAL 1	SOFTENING	DISINFECTION 421

00001 03/01/88 ADAMS-CEDAR HILL WATER SY Mr. Timothy Henson,
Adams-Cedar Hill Water
2,775 (615)696-2266 P.O. BOX 6, KEESBURG RD. Box 6
ADAMS TN 37010 Adams TN 3701
OF SERVICES - 925

OUNTY - ROBERTSON (SEASON) BEGIN - END -

SOURCE NAME	AVAIL	LATITUDE	LONGITUDE
RED RIVER	P	036-35-35	087-03-30

TREATMENT

PRECHLORINATION	403	CORROSION CONTROL		MANGANESE REMOVAL	
PART. REMOVAL 1	345	SOFTENING		DISINFECTION	401
PART. REMOVAL 2	240	TASTE & ODOR CONTROL		UNTREATED	
PART. REMOVAL 3	660	IRON REMOVAL		FLUORIDE	

INORGANIC CHEMICAL RESULTS

11/26/90

PWSID 000246 SYSTEM NAME FRANKLIN WATER DEPT COUNTY WILLIAMSON

SAMPLE DATE	CONTAMINANT NAME	ANALYSIS DATE		RESULT	MCL*
07/18/89	ARSENIC	07/28/89	<	0.00100	0.05000
07/18/89	BARIUM	08/02/89	<	0.10000	1.00000
07/18/89	CADMIUM	07/31/89	<	0.00100	0.01000
07/18/89	CHROMIUM	07/21/89	<	0.01000	0.05000
07/18/89	FLUORIDE	07/18/89		1.05000	4.00000
07/18/89	LEAD	07/27/89	<	0.00500	0.05000
07/18/89	MERCURY	07/26/89	<	0.00100	0.00200
07/18/89	NITRATE (AS N)	07/20/89	<	0.10000	10.00000
07/18/89	SELENIUM	07/28/89	<	0.00100	0.01000
07/18/89	SILVER	07/31/89		0.00100	0.05000
07/18/89	SODIUM	08/22/89		2.60000	NONE
08/07/87	HARDNESS - CALCIUM	08/27/87		145.0000	NONE
08/07/87	PH	08/07/87		7.70000	NONE
08/07/87	TOTAL ALKYLINITY	08/10/87		125.0000	NONE
08/07/87	AGGRESSIVE INDEX	08/27/87		12.00000	NONE
08/07/87	TEMPERATURE (%C)	08/07/87		28.00000	NONE
08/07/87	LANGELIER INDEX	08/27/87	+	0.20000	NONE

* = MAXIMUM CONTAMINANT LEVEL ALLOWED BY STATE AND FEDERAL REGULATIONS
(NOTE THAT THERE IS NO MCL FOR SODIUM. AND SOME OTHER CONTAMINANTS THIS INFORMATION IS AVAILABLE FOR PERSONS ON A SODIUM RESTRICTED DIET.)

SAMPLE ANALYSIS FILE - TRANSACTION CODE REPORT

COUNTY=BERGEN

PUBLIC WATER ID	PLANT OWNER	TRANSACTION CODE	FACILITY NUMBER	SAMPLE NUMBER	CONTAMINANT ID	LABID	SIGN	RESULT	SAMPLE DATE
0228001	HO-HO-KUS WATER DEPT	TH	01	01	2941	02046		3.00000	07/10/89
0228001	HO-HO-KUS WATER DEPT	TH	01	01	2942	02046	<	1.00000	07/10/89
0228001	HO-HO-KUS WATER DEPT	TH	01	01	2943	02046	<	1.00000	07/10/89
0228001	HO-HO-KUS WATER DEPT	TH	01	01	2944	02046	<	1.00000	07/10/89
0228001	HO-HO-KUS WATER DEPT	TH	01	01	2950	02046		3.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	01	2941	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	02	2941	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	03	2941	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	04	2941	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	05	2941	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	01	2942	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	02	2942	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	03	2942	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	04	2942	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	05	2942	02046		2.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	01	2943	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	02	2943	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	03	2943	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	04	2943	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	05	2943	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	01	2944	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	02	2944	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	03	2944	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	04	2944	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	05	2944	02046		1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	01	2950	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	02	2950	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	03	2950	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	04	2950	02046	<	1.00000	07/10/89
0233001	MAHWAH WATER DEPT	TH	01	05	2950	02046		3.00000	07/10/89
0233005	BOGERTS RANCH ESTATES INC	TH	01	01	2941	02046	<	1.00000	07/10/89
0233005	BOGERTS RANCH ESTATES INC	TH	01	01	2942	02046	<	1.00000	07/10/89
0233005	BOGERTS RANCH ESTATES INC	TH	01	01	2943	02046	<	1.00000	07/10/89
0233005	BOGERTS RANCH ESTATES INC	TH	01	01	2944	02046	<	1.00000	07/10/89
0233005	BOGERTS RANCH ESTATES INC	TH	01	01	2950	02046	<	1.00000	07/10/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	01	2941	16047		0.20000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	02	2941	16047	<	0.20000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	03	2941	16047		0.20000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	04	2941	16047		0.20000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	01	2942	16047		0.50000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	02	2942	16047		0.90000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	03	2942	16047		0.20000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	04	2942	16047		0.40000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	01	2943	16047	<	0.10000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	02	2943	16047	<	0.10000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	03	2943	16047	<	0.10000	07/26/89
0251001	RIDGEWOOD WATER DEPARTMENT	TH	01	04	2943	16047		0.10000	07/26/89

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
BUREAU OF SAFE DRINKING WATER

11:21 WEDNESDAY, SEPTEMBER 27, 1989

SAMPLE ANALYSIS FILE - TURBIDITY REPORT

PUBLIC WATER ID=0102001

PLANT OWNER	LABID	HIGH RESULT	LOW RESULT	RESULT	SAMPLE DATE
ATLANTIC CITY MUA	01001	1.10000	0.32000	0.74000	01/31/89
ATLANTIC CITY MUA	01001	1.50000	0.65000	0.82000	02/28/89
ATLANTIC CITY MUA	01001	2.00000	0.20000	1.15000	03/31/89
ATLANTIC CITY MUA	01001	1.60000	0.29000	0.81000	04/30/89
ATLANTIC CITY MUA	01001	2.20000	0.15000	0.50000	05/31/89
ATLANTIC CITY MUA	01001	1.70000	0.20000	0.82000	06/30/89
ATLANTIC CITY MUA	01001	2.00000	0.40000	0.83000	07/31/89
ATLANTIC CITY MUA	01001	2.10000	0.40000	0.84000	08/31/89

N= 8

PUBLIC WATER ID=1111001

PLANT OWNER	LABID	HIGH RESULT	LOW RESULT	RESULT	SAMPLE DATE
TRENTON WATER DEPARTMENT	11133	0.54000	0.03000	0.15000	01/31/89
TRENTON WATER DEPARTMENT	11133	10.00000	0.02000	0.42000	02/28/89
TRENTON WATER DEPARTMENT	11133	0.38000	0.03000	0.12000	03/31/89
TRENTON WATER DEPARTMENT	11133	0.46000	0.02000	0.10000	04/30/89
TRENTON WATER DEPARTMENT	11133	0.38000	0.05000	0.19000	05/31/89
TRENTON WATER DEPARTMENT	11133	0.62000	0.05000	0.14000	06/30/89
TRENTON WATER DEPARTMENT	11133	0.49000	0.04000	0.11000	07/31/89
TRENTON WATER DEPARTMENT	11133	0.22000	0.04000	0.10000	08/31/89

N= 8

NEW JERSEY DEPARTMENT OF ENVIRONEMENTAL PROTECTION
DIVISION OF WATER RESOURCES
BUREAU OF SAFE DRINKING WATER

NEW JERSEY PUBLIC WATER SUPPLY SYSTEM

PW_ID: 0102001

SYSTEM NAME	ATLANTIC CITY MUA
PLANT TYPE	COMMUNITY
PLANT BEGIN DATE	06/01/77
POPULATION	80,000
CONSECUTIVE INDICATOR	NOT CONSECUTIVE
NUMBER OF CONSECUTIVE PWS	0
COMPLIANCE CYCLE	01
REGULATED BY	REGULATED BY STATE
ACTIVITY CODE	ACTIVE
DEACTIVATION DATE	
DEACTIVATION REASON	
REPORT REQUIRED	NO
INTERSTATE CARRIER	NO
OWNER TYPE	MUNICIPALITY

ADDRESS DATA:

OWNER NAME	ATLANTIC CITY MUA
OWNER NAME LINE2	
OWNER ADDRESS	2101 ARCTIC AVE BOX 1686
	ATLANTIC CITY NJ 08404
MAILING NAME	ATLANTIC CITY MUA
MAILING NAME LINE2	
MAILING ADDRESS	PO BOX 1686
	ATLANTIC CITY NJ 08404
PLANT AREA CITY NAME	ATLANTIC CITY
PHONE NUMBER	(609)641-0024
COUNTY	ATLANTIC

SURVEY DATA:

LAST SURVEY DATE	01/24/89
SERVICE CONNECTIONS	8,400
NUMBER OF METERS	8,232
AVERAGE PRODUCTION	12,800,000
MAXIMUM PRODUCTION	16,400,000
DESIGN CAPACITY	35,707,000
STORAGE CAPACITY	7,000,000

TRIHALOMETHANE I

NUMBER OF SAMPLES	
NUMBER OF PLANTS	1
MONITORING FREQUENCY	QUARTERLY

SOURCE CAPACITY, LOCATION, TREATMENT AND VULNERABILITY

WATER SYSTEM NUMBER: 27015

WATER SYSTEM MANAGER: GLEN GUBLER
WATER SYSTEM NAME: ST. GEORGE CITY
ADDRESS: 175 EAST 200 NORTH
ST GEORGE, UT 84770
PHONE: 634-5839

SOURCE NO	SOURCE NAME	SOURCE TYPE	SOURCE CAPACITY (GPM)	SOURCE LOCATION- LATITUDE DEG MIN SEC	LONGITUDE DEG MIN SEC	TREATMENT PROVIDED	VULNERABILITY
01	COTTONWOOD SPR	SPRING	1,900	37 18 44.0	113 30 18.0	CHLORINATION	UNKNOWN
02	SULLIVAN SPRING	SPRING		37 17 55.0	113 30 40.0	CHLORINATION	UNKNOWN
03	LOWER SPRING	SPRING		37 17 51.0	113 30 37.0	CHLORINATION	UNKNOWN
04	N FORK CTTNWD	SPRING		37 18 14.0	113 31 34.0	CHLORINATION	UNKNOWN
05	QUAKING ASP SPR	SPRING		37 19 22.0	113 31 28.0	CHLORINATION	UNKNOWN
06	BIG PINE CANYON	SPRING		37 19 11.0	113 31 29.0	CHLORINATION	UNKNOWN
07	SLIDE CANYON SP	SPRING		37 30 15.0	113 31 38.0	CHLORINATION	UNKNOWN
08	CARTER CANYON	SPRING		37 20 01.0	113 31 54.0	CHLORINATION	UNKNOWN
09	GUNLOCK WELL 1	WELL	850	37 13 57.0	113 48 57.0	NONE	UNKNOWN
10	GUNLOCK WELL 2	WELL	700	37 14 43.0	113 47 32.0	NONE	UNKNOWN
11	GUNLOCK WELL 3	WELL	1,800	37 13 19.0	113 46 51.0	NONE	UNKNOWN
12	GUNLOCK WELL 4	WELL	1,500	37 13 43.0	113 46 44.0	NONE	UNKNOWN
13	MILLCREEK SPR	SPRING		37 00 00.0	113 34 00.0	CHLORINATION	UNKNOWN
14	GUNLOCK WELL 5	WELL	1,300	37 14 16.0	113 48 45.0	NONE	UNKNOWN
15	CITY CREEK WELL	WELL	1,500	37 09 17.0	113 34 20.0	NONE	UNKNOWN
16	SNOW CANY #1	WELL	200	37 13 01.0	113 39 20.0	NONE	UNKNOWN
17	SNOW CANY#2	WELL	650	37 13 28.0	113 39 25.0	NONE	UNKNOWN
18	SNOW CAN #3	WELL	650	37 13 55.0	113 39 30.0	NONE	UNKNOWN
19	MILLCREEK NO. 1	WELL	450	37 10 52.0	113 31 07.0	NONE	UNKNOWN
20	MILLCREEK NO. 2	WELL	700	37 11 12.0	113 30 58.0	NONE	UNKNOWN
21	MILLCREEK NO. 3	WELL	1,200	37 11 31.0	113 30 46.0	NONE	UNKNOWN
22	SNOW CANYON #4	WELL	700	37 14 24.0	113 39 28.0	NONE	UNKNOWN
*P23	GUNLOCK NO. 6	WELL		37 14 08.0	113 47 20.0	NONE	UNKNOWN
*P24	SNOW CANYON #5	WELL				UNKNOWN	UNKNOWN
25	VIRGIN RIVER	STREAM				COMPLETE	UNKNOWN

"*P" MEANS THIS SOURCE IS PLANNED FOR CONSTRUCTION

UTAH BUREAU OF PUBLIC WATER SUPPLIES

PUBLIC WATER SUPPLY INFORMATION SYSTEM

11/16/90

Water System Number: 27015

Name:	ST. GEORGE CITY	Rating:	APPROVED	Population:	31,000
Owner:	CITY OF ST. GEORGE	Rating Assigned:	08/20/82	Residential Conn.:	9,040
Address:	175 EAST 200 NORTH	Inventory Reviewed:	03/16/87	Other Connections:	1,340
	ST GEORGE, UT 84770	Inventoried By:	SCANLAN	Total No. Connections:	10,380
Area:	ST GEORGE	Last Surveyed:	10/03/90	Type Other Conn:	COMMERCIAL
County:	WASHINGTON	Surveyed By:	BLAKE	Outside Use Permitted:	YES
Type:	COMMUNITY-POLITICAL SUBDIV	Last Plan Appr.:	03/20/90	Calc Peak Demand (GPD):	15,000,000
Mangr.:	GLEN GUBLER	System Engineer:		GPD/1440 = Demand (GPM):	10,416
Phone:	634-5839	Begin Operation:	01/01	Peak Hourly Demand:	
Oper.:	GLEN GUBLER	End Operation:	12/31		
Phone:	634-5800				

-BACTERIOLOGIC QUALITY-	-STORAGE-	-TREATMENT-	-DISTRIBUTION-
Samples Req/Month: 35	Number of Units: 12	Type: COMPLETE	Pump/Gravity: BOTH
Month Insuf. Samps: 0	Material: STEEL-CONCRETE	Plant: QUAIL CREEK	Fire Hydrants: YES
Month Unsat Result: 0	Capacity: 21,000,000	Capacity (MGD): 10.00	Pressure Adeq.: YES
Record Satis.: YES	Adequate: YES	Installed: 1989	PCT Metered: 100
12 Mos End.: 06/30/90			Master Meter: YES

								Chemical Sampling					
			Well					Radiologic		Organic		Inorganic	
No.	Source Type	Source Name	Type	Dia	Yield (GPM)	Adeq. Prot.	Evaluatn	Last Samp	Evaluatn	Last Samp	Evaluatn	Last Samp
01	SPRING	COTTONWOOD SPR			1,900	YES	ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
02	SPRING	SULLIVAN SPRING				YES	ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
03	SPRING	LOWER SPRING					ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
04	SPRING	W FORK CTTNWD				YES	ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
05	SPRING	QUAKING ASP SPR				YES	ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
06	SPRING	BIG PINE CANYON				YES	ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
07	SPRING	SLIDE CANYON SP				YES	ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
08	SPRING	CARTER CANYON				YES	ACCPTBLE	F899289	ACCPTBLE	F900681	ACCPTBLE	F899279
09	WELL	GUNLOCK WELL 1			850	YES	ACCPTBLE	F899284	ACCPTBLE	F886264	ACCPTBLE	F889968
10	WELL	GUNLOCK WELL 2			700		ACCPTBLE	F893184	ACCPTBLE	F886266	ACCPTBLE	F899282
11	WELL	GUNLOCK WELL 3			1,800	YES	ACCPTBLE	F893184	ACCPTBLE	F886266	ACCPTBLE	F899282
12	WELL	GUNLOCK WELL 4			1,500	YES	ACCPTBLE	F886337	ACCPTBLE	F886267	ACCPTBLE	F906181
13	SPRING	MILLCREEK SPR					ACCPTBLE	F899288			MARGINAL	F889966
14	WELL	GUNLOCK WELL 5	SHALLOW	18	1,300	YES	ACCPTBLE	F900709	ACCPTBLE	F900688	ACCPTBLE	F889971
15	WELL	CITY CREEK WELL			1,500		ACCPTBLE	F899287	ACCPTBLE	F900703	EXCD MCL	F889963
16	WELL	SNOW CANY #1			200		ACCPTBLE	F899285	ACCPTBLE	F900683	ACCPTBLE	F899280
17	WELL	SNOW CANY#2			650		ACCPTBLE	F899285	ACCPTBLE	F900683	ACCPTBLE	F899280
18	WELL	SNOW CAN #3	DEEP		650	YES	ACCPTBLE	F899285	ACCPTBLE	F900683	ACCPTBLE	F899280
19	WELL	MILLCREEK NO. 1	DEEP	12	450	YES	ACCPTBLE	F900707	ACCPTBLE	F900701	EXCD MCL	F882885
20	WELL	MILLCREEK NO. 2	DEEP	12	700	YES	ACCPTBLE	F900708	ACCPTBLE	F886258	ACCPTBLE	F889967
21	WELL	MILLCREEK NO. 3	DEEP	12	1,200	YES	ACCPTBLE	F899286	ACCPTBLE	F900677	ACCPTBLE	F889965
22	WELL	SNOW CANYON #4	DEEP	16	700	YES	ACCPTBLE	F886388	ACCPTBLE	F900685	ACCPTBLE	F899281
•P23	WELL	GUNLOCK NO. 6							ACCPTBLE	F900695		
•P24	WELL	SNOW CANYON #5							ACCPTBLE	F900691	EXCD MCL	F889408
25	STREAM	VIRGIN RIVER				NO	ACCPTBLE	F897812				

"•P" MEANS THIS SOURCE PLANNED FOR CONSTRUCTION

OPERATOR RECORD

11/18/90

Name: GLEN L. GUBLER Cert. #: 84042
Operator's Home Address: 434 N 400 W
City: ST GEORGE State: UT Zip Code: 84770
Home Phone: 673-2338 Work Phone: 634-5800
Social Security Number: - - Birth Date: / /
Current Water System Employer: 27015 ST. GEORGE CITY

Direct Responsible Charge (Y=yes, N=No): Y

		Expiration Year	CEU's	Restricted (YES, NO)	Grandfather (YES, NO)	System Number
Distribution Grade Level:	4	1990	07.8		YES	27015
Treatment Grade Level:						
Distribution Grade Level:						
Treatment Grade Level:						

CONTINUING EDUCATION RECORDS

Course Date	Course Name	Course Location	CEU's Awarded
09/19/90	AWWA INTERMOUNTAIN SECTION 33RD ANNUAL MEETING (3 DAYS)	ST. GEORGE, UTAH	1.0
02/22/90	RWAU 1990 ANNUAL TECHNICAL CONFERENCE (2 DAYS)	ST. GEORGE, UTAH	1.0
09/20/89	AWWA CONFERENCE (3 DAYS)	ELKO, NEVADA	1.0
02/23/89	RWAU 1989 TECHNICAL CONFERENCE	PROVO, UTAH	1.4
11/10/88	TECHNICAL SESSION (RWAU)	ST. GEORGE, UTAH	0.6
02/18/88	RWAU 1988 ANNUAL CONVENTION	PROVO, UTAH	1.0
02/10/88	WATER DISTRIBUTION WORKSHOP	ST. GEORGE, UTAH	0.6
01/14/88	RWAU TRAINING SESSION	HURRICANE, UTAH	1.2
09/23/87	AWWA INTERMOUNTAIN SECTION ANNUAL CONFERENCE	PARK CITY, UTAH	1.0
09/23/87	AWWA CONFERENCE	1987 (3 DAYS)	1.0
09/24/86	AWWA OPERATORS FORUM	PROVO, UT.	0.6
09/24/86	AWWA INTERMOUNTAIN SECTION ANNUAL MEETING 1986	PROVO, UT.	1.0
09/24/85	AWWA INTERMOUNTAIN SECTION ANNUAL MEETING	POCATELLO IDAHO	1.0

S. C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
BUREAU OF DRINKING WATER PROTECTION
12/19/90
PAGE 2172
INVENTORY OF PUBLIC WATER SUPPLY SYSTEMS

SYSTEM NUMBER: 4170100 DISTRICT: 04

SYSTEM NAME / ADDRESS:

SYSTEM: HOLLYWOOD RURAL
CONTACT NAME (FIRST, MI, LAST):
NELLE TAYLOR (SUPERINTENDENT)
ADDRESS: 406 N WISE STREET
CITY: SALUDA STATE: SC ZIP: 29138

TELEPHONE: EMERGENCY TELEPHONE:
445-8441
LEGAL ADDRESS (IF DIFFERENT):
ADDRESS:
CITY: STATE: ZIP:

SYSTEM CHARACTERISTICS:

SYSTEM TYPE: P OWNER TYPE: O
SERVICE AREA: COUNTIES SERVED:

SEASON ON (MO/DAY): 0101 BEGIN DATE (MO/YR): 0677
SEASON OFF (MO/DAY): 1231

STATISTICAL INFORMATION:

SOURCE INFORMATION:

PERCENT SURFACE	0 %
PERCENT GROUNDWATER	0 %
PERCENT PURCHASED SURFACE	0 %
PERCENT PURCHASED GROUNDWATER	0 %
TOTAL MUST EQUAL	100 %

NUMBER SURFACE SOURCES	0
NUMBER GROUNDWATER SOURCES	2
PURCHASED SURFACE SOURCES	0
PURCHASED GROUNDWATER SOURCES	0

SERVICE POPULATION:

POPULATION	380
SECONDARY POPULATION	0

NUMBER OF TAPS:

RESIDENTIAL	1
NON-RESIDENTIAL	0
MAXIMUM ALLOWABLE	0

PRODUCTION CAPACITY (MGD):

AVERAGE	0.010
TOTAL	0.030
EMERGENCY	0.000

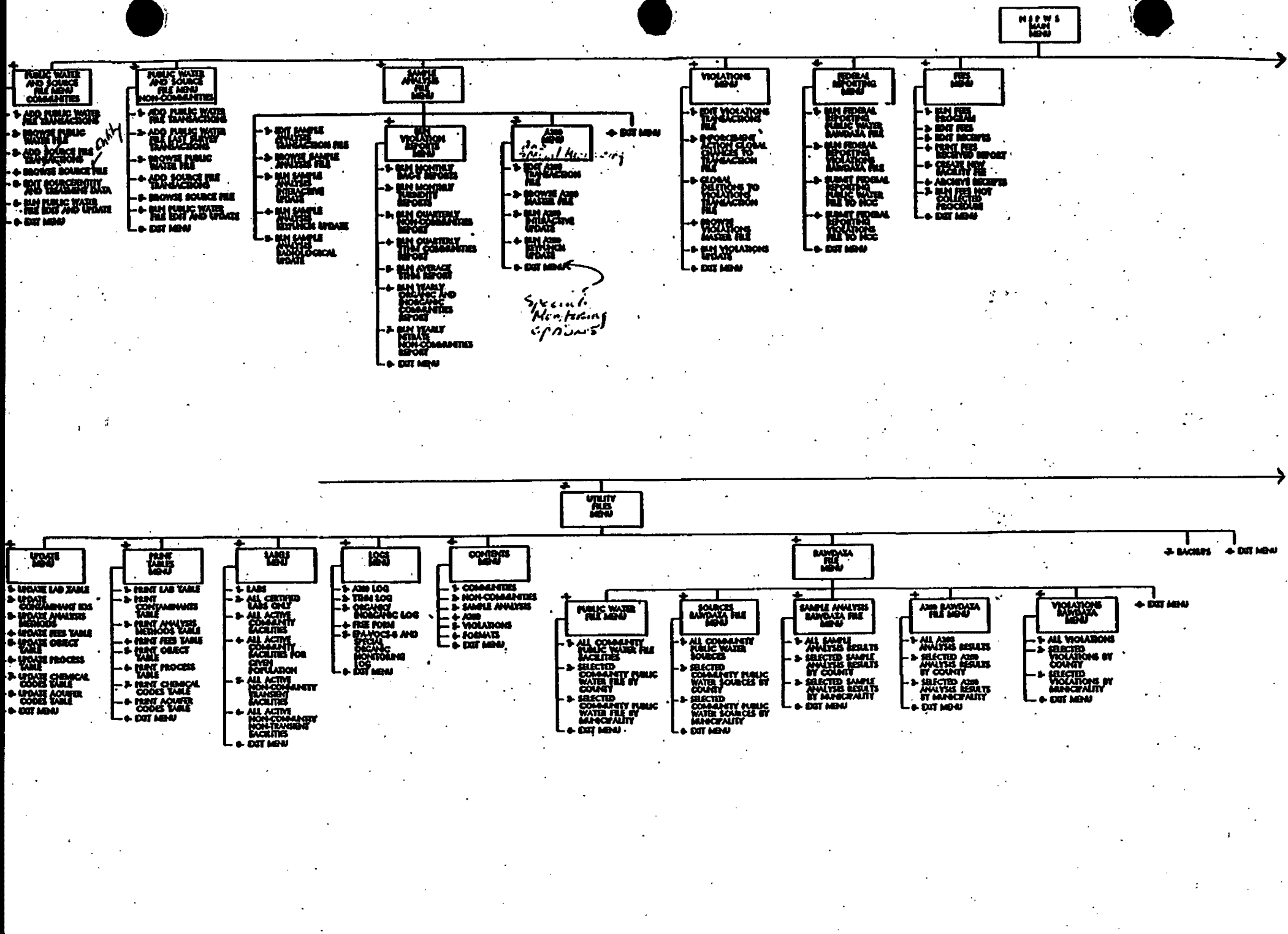
STORAGE:

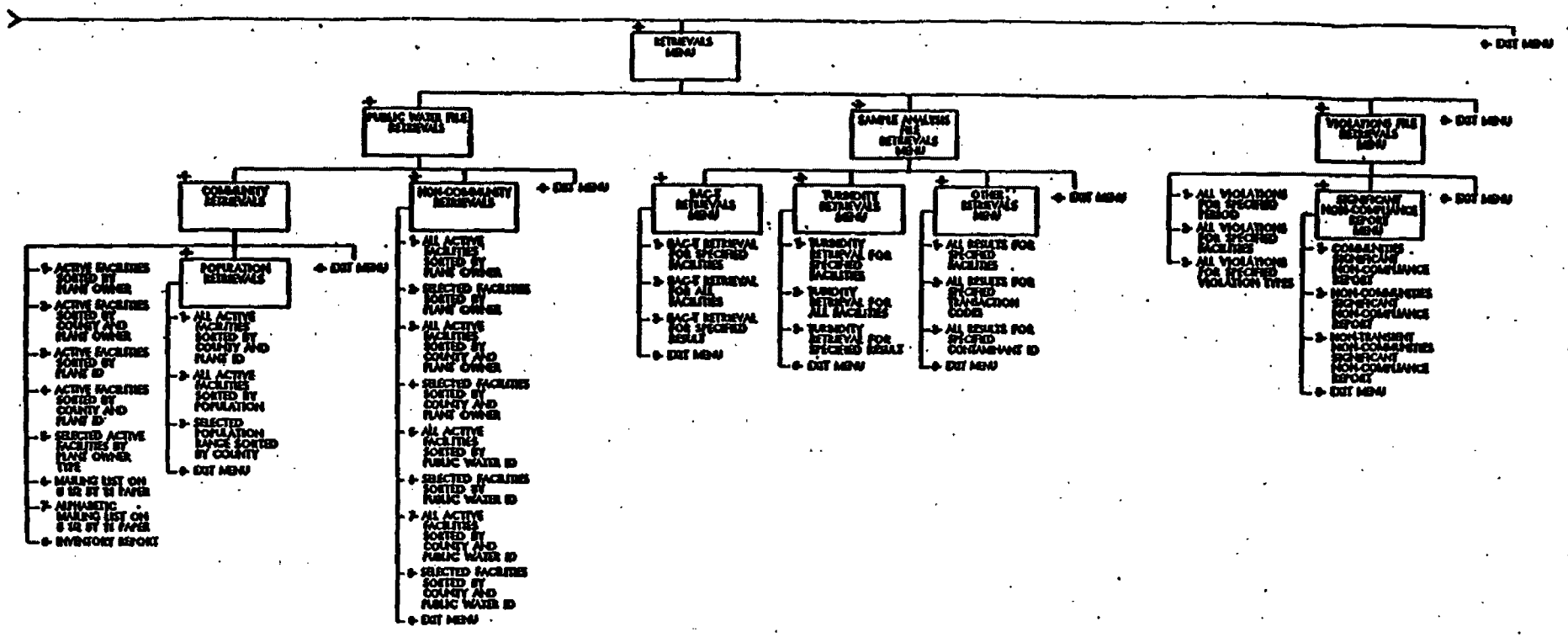
ELEVATED (MG)	0.01
GROUND (MG)	0.00
PRESSURE (TG)	0.00

Examples of System Architecture

BUREAU OF SAFE DRINKING WATER

NEW JERSEY PUBLIC WATER SUPPLY SYSTEM




RETRIEVALS MENU
EXIT MENU
PUBLIC WATER FILE RETRIEVALS
SAMPLE ANALYSIS FILE RETRIEVALS MENU
VIOLATION FILE RETRIEVALS MENU
COMMUNITY RETRIEVALS
NON-COMMUNITY RETRIEVALS
BAC-T RETRIEVALS MENU
TURBIDITY RETRIEVALS MENU
OTHER RETRIEVALS MENU
SIGNIFICANT NON-COMPLIANCE REPORT MENU
ACTIVE FACILITIES SORTED BY PLANT OWNER
ACTIVE FACILITIES SORTED BY COUNTY AND PLANT OWNER
ACTIVE FACILITIES SORTED BY PLANT ID
ACTIVE FACILITIES SORTED BY COUNTY AND PLANT ID
SELECTED ACTIVE FACILITIES BY PLANT OWNER TYPE
MAILING LIST ON 8 1/2 BY 11 PAPER
ARTHMETIC MAILING LIST ON 8 1/2 BY 11 PAPER
INVENTORY REPORT
POPULATION RETRIEVALS
ALL ACTIVE FACILITIES SORTED BY COUNTY AND PLANT ID
ALL ACTIVE FACILITIES SORTED BY POPULATION
SELECTED POPULATION RANGE SORTED BY COUNTY
EXIT MENU
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SELECTED FACILITIES SORTED BY PLANT OWNER
ALL ACTIVE FACILITIES SORTED BY COUNTY AND PLANT OWNER
SELECTED FACILITIES SORTED BY COUNTY AND PLANT OWNER
ALL ACTIVE FACILITIES SORTED BY PUBLIC WATER ID
SELECTED FACILITIES SORTED BY PUBLIC WATER ID
ALL ACTIVE FACILITIES SORTED BY COUNTY AND PUBLIC WATER ID
SELECTED FACILITIES SORTED BY COUNTY AND PUBLIC WATER ID
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BAC-T RETRIEVAL FOR ALL FACILITIES
BAC-T RETRIEVAL FOR SPECIFIED RESULT
EXIT MENU
TURBIDITY RETRIEVAL FOR SPECIFIED FACILITIES
TURBIDITY RETRIEVAL FOR ALL FACILITIES
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ALL RESULTS FOR SPECIFIED FACILITIES
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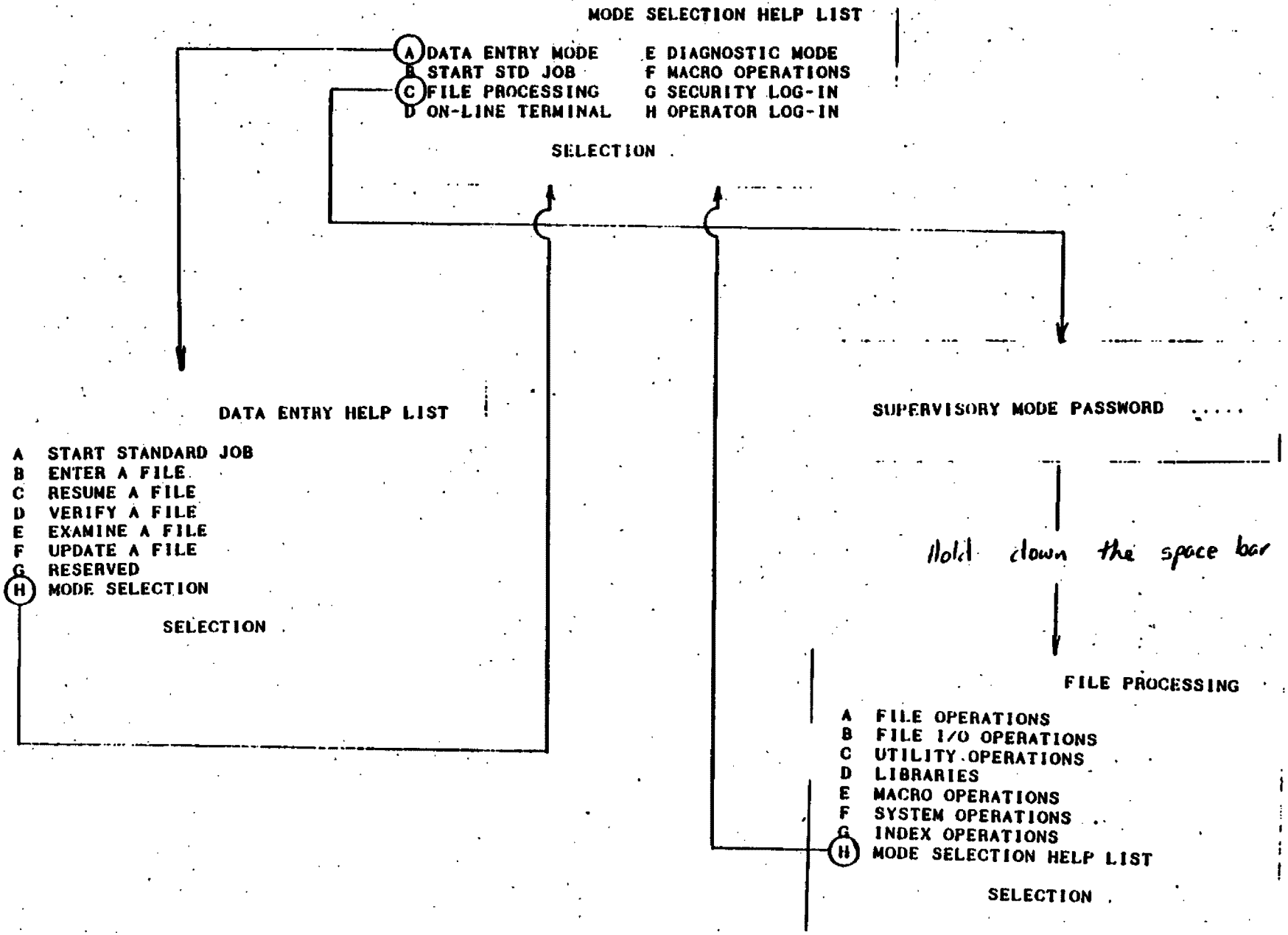
EXIT MENU
ALL VIOLATIONS FOR SPECIFIED PERIOD
ALL VIOLATIONS FOR SPECIFIED FACILITIES
ALL VIOLATIONS FOR SPECIFIED VIOLATION TYPES
COMMUNITIES SIGNIFICANT NON-COMPLIANCE REPORT
NON-COMMUNITIES SIGNIFICANT NON-COMPLIANCE REPORT
NON-TRANSIENT NON-COMMUNITIES SIGNIFICANT NON-COMPLIANCE REPORT
EXIT MENU


MODE SELECTION HELP LIST
A DATA ENTRY MODE
B START STD JOB
C FILE PROCESSING
D ON-LINE TERMINAL
E DIAGNOSTIC MODE
F MACRO OPERATIONS
G SECURITY LOG-IN
H OPERATOR LOG-IN
SELECTION
DATA ENTRY HELP LIST
A START STANDARD JOB
B ENTER A FILE
C RESUME A FILE
D VERIFY A FILE
E EXAMINE A FILE
F UPDATE A FILE
G RESERVED
H MODE SELECTION
SELECTION
SUPERVISORY MODE PASSWORD
Hold down the space bar
FILE PROCESSING
A FILE OPERATIONS
B FILE I/O OPERATIONS
C UTILITY OPERATIONS
D LIBRARIES
E MACRO OPERATIONS
F SYSTEM OPERATIONS
G INDEX OPERATIONS
H MODE SELECTION HELP LIST
SELECTION

FILE PROCESSING

A FILE OPERATIONS
B FILE I/O OPERATIONS
C UTILITY OPERATIONS
D LIBRARIES
E MACRO OPERATIONS
F SYSTEM OPERATIONS
G INDEX OPERATIONS
H MODE SELECTION HELP LIST

SELECTION

FILE PROCESSING

A PERFORM COMMAND MACRO
B PERFORM MACRO PROCEDURES
C PERFORM BACKGROUND COMMAND
D PERFORM BACKGROUND MACRO
E TERMINATE BACKGROUND

SELECTION

FILE PROCESSING

ENTER NAME _____

Type in the word: WATER

Then hit [FIELD RELEASE]

Then hit [REL]

ENTER DATA

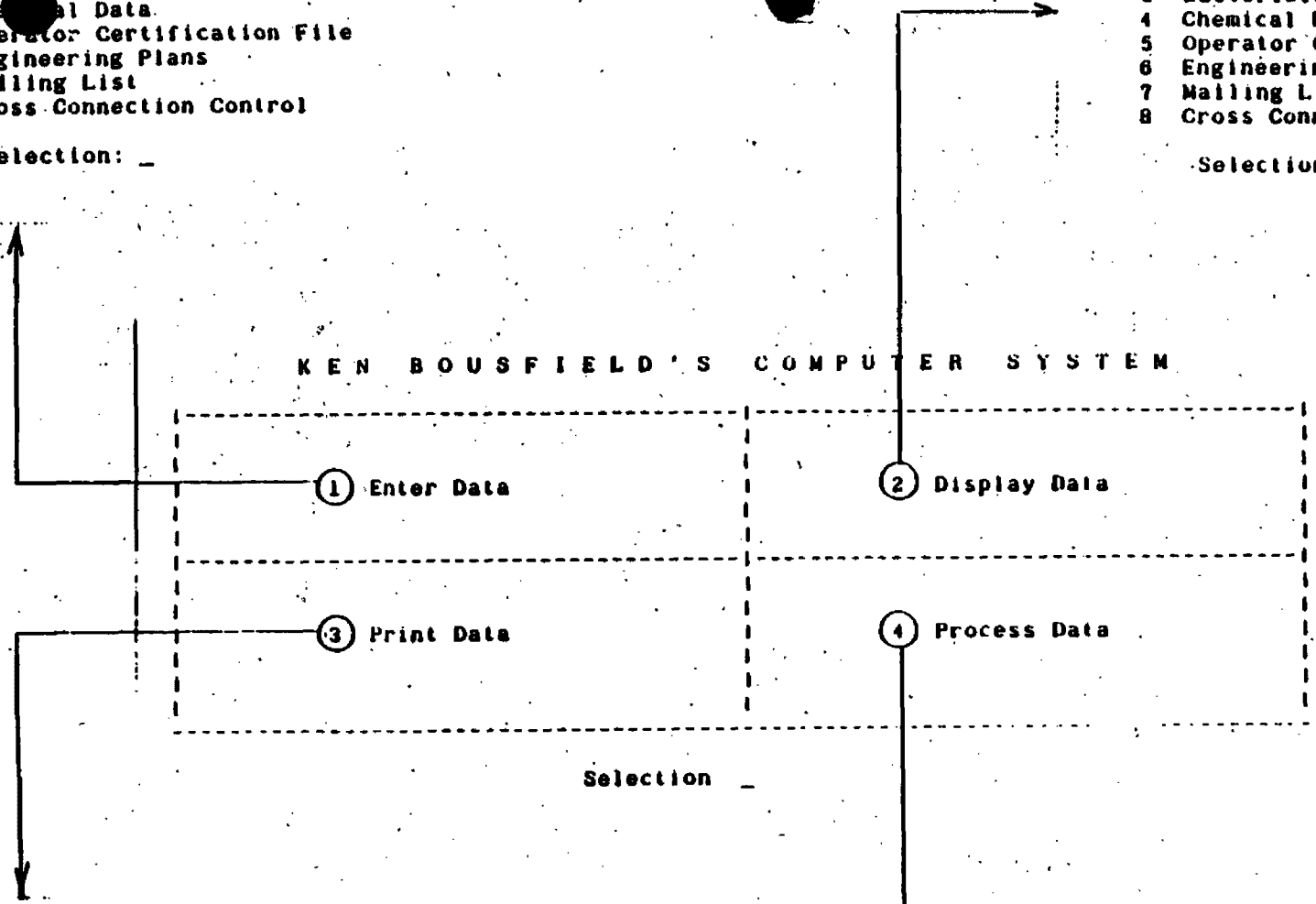
1 Water Systems
2 Water Sources
3 Bacteriologic Data
4 Chemical Data
5 Operator Certification File
6 Engineering Plans
7 Mailing List
8 Cross Connection Control

Selection: _

DISPLAY DATA

1 Water Systems
2 Water Sources
3 Bacteriologic Data
4 Chemical Data
5 Operator Certification File
6 Engineering Plans
7 Mailing List
8 Cross Connection Control

Selection: _



PRINT DATA

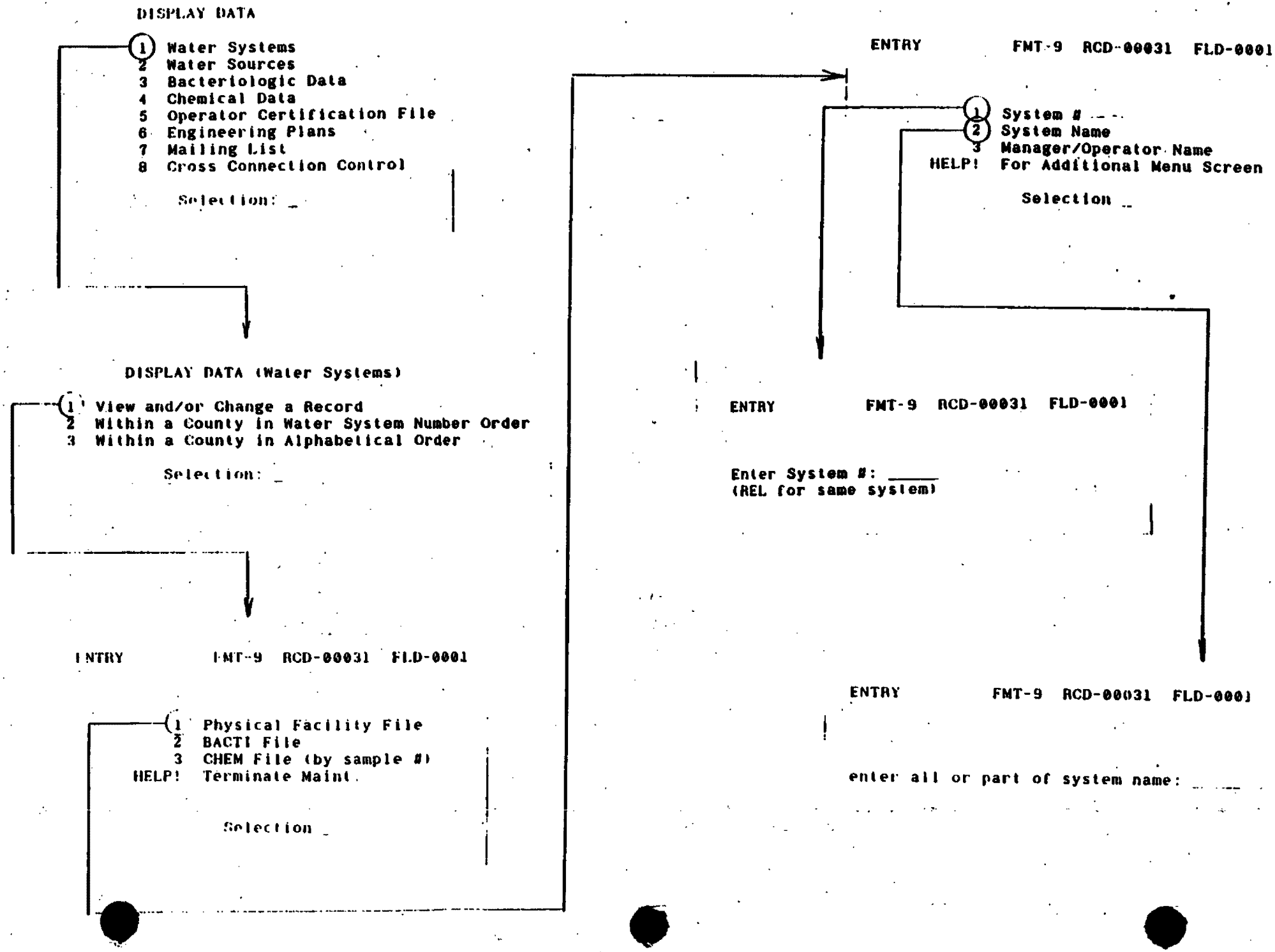
1 Water Systems
2 Water Sources
3 Bacteriologic Data
4 Chemical Data
5 Operator Certification File
6 Engineering Plans
7 Mailing List
8 Cross Connection Control

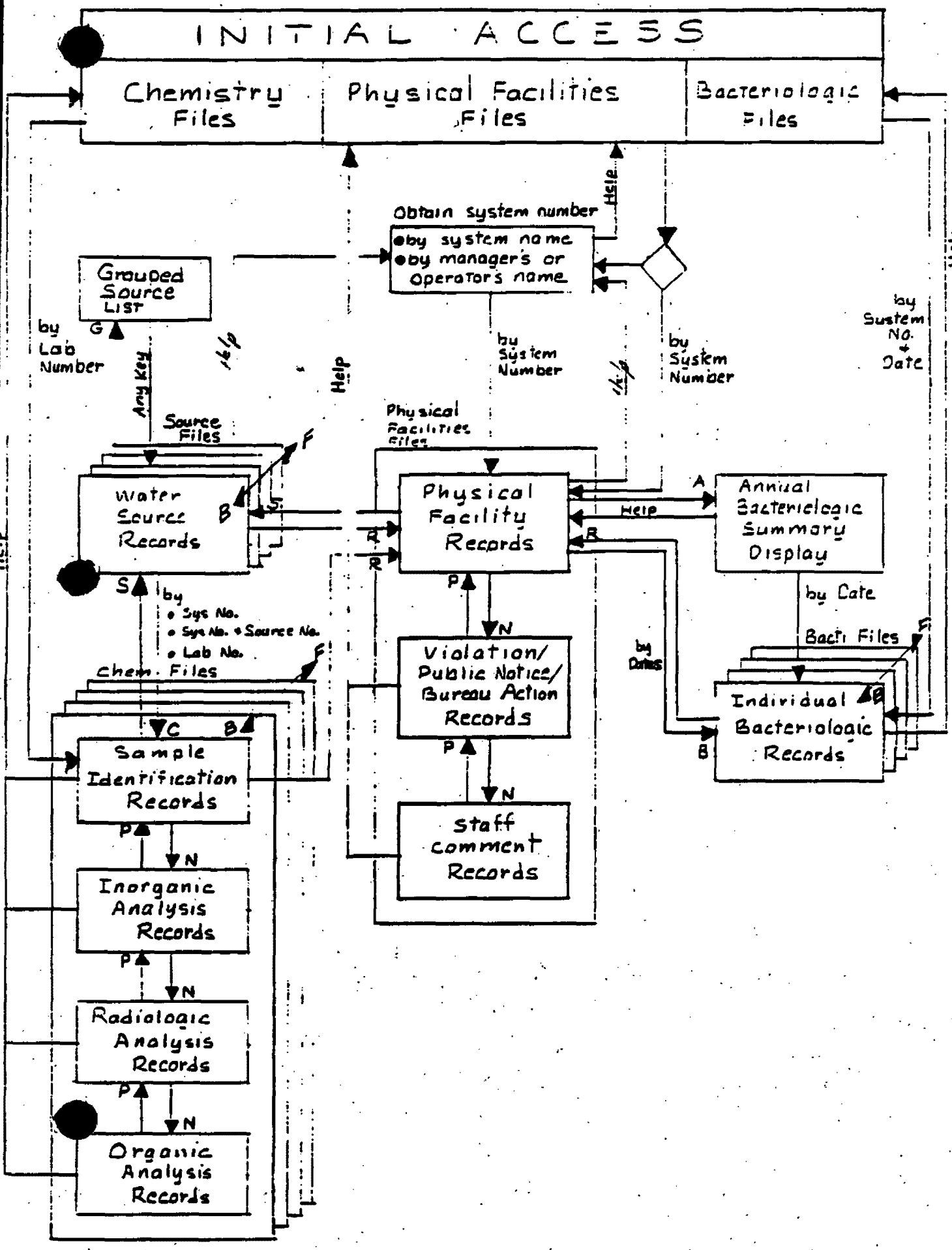
Selection: _

PROCESS DATA

1 Water Systems
2 Water Sources
3 Bacteriologic Data
4 Chemical Data
5 Operator Certification File
6 Engineering Plans
7 Mailing List
8 Cross Connection Control

Selection: _


DISPLAY DATA
1 Water Systems
2 Water Sources
3 Bacteriologic Data
4 Chemical Data
5 Operator Certification File
6 Engineering Plans
7 Mailing List
8 Cross Connection Control
Selection: _
DISPLAY DATA (Water Systems)
1 View and/or Change a Record
2 Within a County in Water System Number Order
3 Within a County in Alphabetical Order
Selection: _
ENTRY FMT-9 RCD-00031 FLD-0001
1 Physical Facility File
2 BACTI File
3 CHEM File (by sample #)
HELP! Terminate Maint.
Selection _
ENTRY FMT-9 RCD-00031 FLD-0001
1 System # _ _ _
2 System Name
3 Manager/Operator Name
HELP! For Additional Menu Screen
Selection _
ENTRY FMT-9 RCD-00031 FLD-0001
Enter System #: _____
(REL for same system)
ENTRY FMT-9 RCD-00031 FLD-0001
enter all or part of system name: _ _ _


INITIAL ACCESS
Chemistry Files
Physical Facilities Files
Bacteriologic Files
Help
Obtain system number
•by system name
•by manager's or operator's name
Grouped Source List
G
by Lab Number
Any Key
Help
by System Number
by System Number
by System No. + Date
Source Files
F
Water Source Records
B
S
Physical Facilities Files
Physical Facility Records
R
R
A
Help
Annual Bacteriologic Summary Display
by Date
Bacti Files
F
by Dates
Individual Bacteriologic Records
B
S
by
• Sys No.
• Sys No. + Source No.
• Lab No.
Chem. Files
F
C
B
Sample Identification Records
P
N
Inorganic Analysis Records
P
N
Radiologic Analysis Records
P
N
Organic Analysis Records
P
N
Violation/ Public Notice/ Bureau Action Records
P
N
Staff comment Records

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- PWSCOD - CODE VALUE LOOK UP
- PWSNAM - ALPHABETIC PWS NAME LOOK UP
- PWSLAB - ALPHABETIC LAB NAME LOOK UP
- PWSNUM - NUMERIC PWS ID# LOOK UP

SYSTEM INVENTORY AND MAINTENANCE
- PWS001 - SYSTEM INVENTORY, PART 1
- PWS002 - SYSTEM INVENTORY, PART 2
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- PWS004 - SOURCE INFORMATION
- PWS008 - PERMIT HISTORY MAINTENANCE
- PWS009 - COMMENT INQUIRY & MAINTENANCE
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- PWS012 - CONSECUTIVE SYSTEMS INVENTORY
- PWS013 - SANITARY SURVEY HISTORY
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- PWS015 - INSPECTION CONCLUSIONS
- PWS016 - INSPECTION COMMENTS
- PWS017 - MOR INVENTORY
- PWS018 - MOR MASS ENTRY SCREEN

SAMPLES MAINTENANCE
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- PWS020 - BACTERIOLOGICAL GOOD SAMPLE MASS ENTRY
- PWS021 - BACTERIOLOGICAL GOOD SAMPLES MAINTENANCE & INQUIRY
- PWS022 - BACTERIOLOGICAL OTHER SAMPLE MASS ENTRY
- PWS023 - BACTERIOLOGICAL OTHER SAMPLES MAINTENANCE & INQUIRY
- PWS024 - BACTERIOLOGICAL DISPLAY SUMMARY
- PWS025 - TURBIDITY SAMPLE MASS ENTRY
- PWS026 - TURBIDITY SAMPLE MAINTENANCE & INQUIRY
- PWS027 - TRIHALOMETHANE SAMPLE MAINTENANCE & INQUIRY
- PWS028 - VOCs
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- PWS030 - INORGANICS
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- PWS032 - LANGLIER CALCULATIONS
- PWS033 - RADIOLOGICALS
- PWS034 - UNREGULATEDS--PURGEABLES
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- PWS037 - UNREGULATEDS--ACID EXTRACTABLES

VIOLATIONS & ENFORCEMENTS
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- PWS039 - ENFORCEMENT ACTIONS
- PWS040 - POTENTIAL VIOLATION SELECTION MENU
- PWS042 - POTENTIAL VIOLATION EDITOR
- PWS043 - VIOLATION SUMMARY (USE FOR MASS VIOLATION DELETIONS)
- PWS044 - VIOLATION RANGE ENTRY
- PWS045 - VIOLATION RANGE SUMMARY
- PWS046 - ENFORCEMENT SUMMARY

PLANT DISTRIBUTION, TREATMENT, STORAGE & LAB CAPABILITY
- PWS059 - DISTRIBUTION SYSTEM
- PWS060 - GROUNDWATER SOURCE DESCRIPTION
- PWS061 - SURFACE WATER DESCRIPTION, PART 1
- PWS062 - SURFACE WATER DESCRIPTION, PART 2
- PWS063 - PLANT TREATMENT DESCRIPTION, PART 1
- PWS064 - " " " PART 2
- PWS065 - " " " PART 3
- PWS066 - " " " PART 4
- PWS067 - " " " PART 5
- PWS068 - " " " PART 6
- PWS069 - " " " PART 7
- PWS070 - " " " PART 8
- PWS071 - PUMP DESCRIPTION
- PWS072 - STORAGE TANK DESCRIPTION
- PWS073 - SYSTEM LABORATORY CAPABILITY

MISCELLANEOUS
- PWS074 - COMPLIANCE SUMMARY SCREEN
- SCREEN ACTION CODES FOR PASSING TO ANOTHER SCREEN
  (Option to changing screen number in upper left corner)

REPORTS
- PWSP07 - NON-COMPLIANCE LETTERS AND ADDRESS FILE
- PWSP01 - DRINKING WATER QUICK LOOK REPORT
- PWSP02 - DRINKING WATER CHEMICAL SELECTION REPORT
- PWSP03 - EN MASSE ENFORCEMENT ADD BATCH PROGRAM
- PWSP04 - VIOLATION/ENFORCEMENT REPORT
- PWSP08 - SANITARY SURVEY REPORT
- PWSP09 - TRIHALOMETHANE REPORT
- PWSP10 - DRINKING WATER SIGNIFICANT NON-COMPLIER REPORT
- PWSP50 - COMPLIANCE EXTRACT
- PWSP81 - LABORATORY DETAIL REPORT
- PWSP82 - LABORATORY DIRECTORY REPORT
- PWSP91 - DISTRICT LISTING OF DRINKING WATER SYSTEMS
- PWSP95 - CODE VALUE DESCRIPTIONS
- PWSP96 - PWS MAILING LABELS
- PWSP97 - LAB MAILING LABELS
- PWSP11 - DRINKING WATER BACTERIOLOGICAL SELECTION REPORT
- PWSP30 - REPORT ON SAMPLES DUE
- PWS111 - MONTHLY OPERATING REPORT

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PUBLIC WATER SUPPLY INVENTORY - USER DOCUMENTATION

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