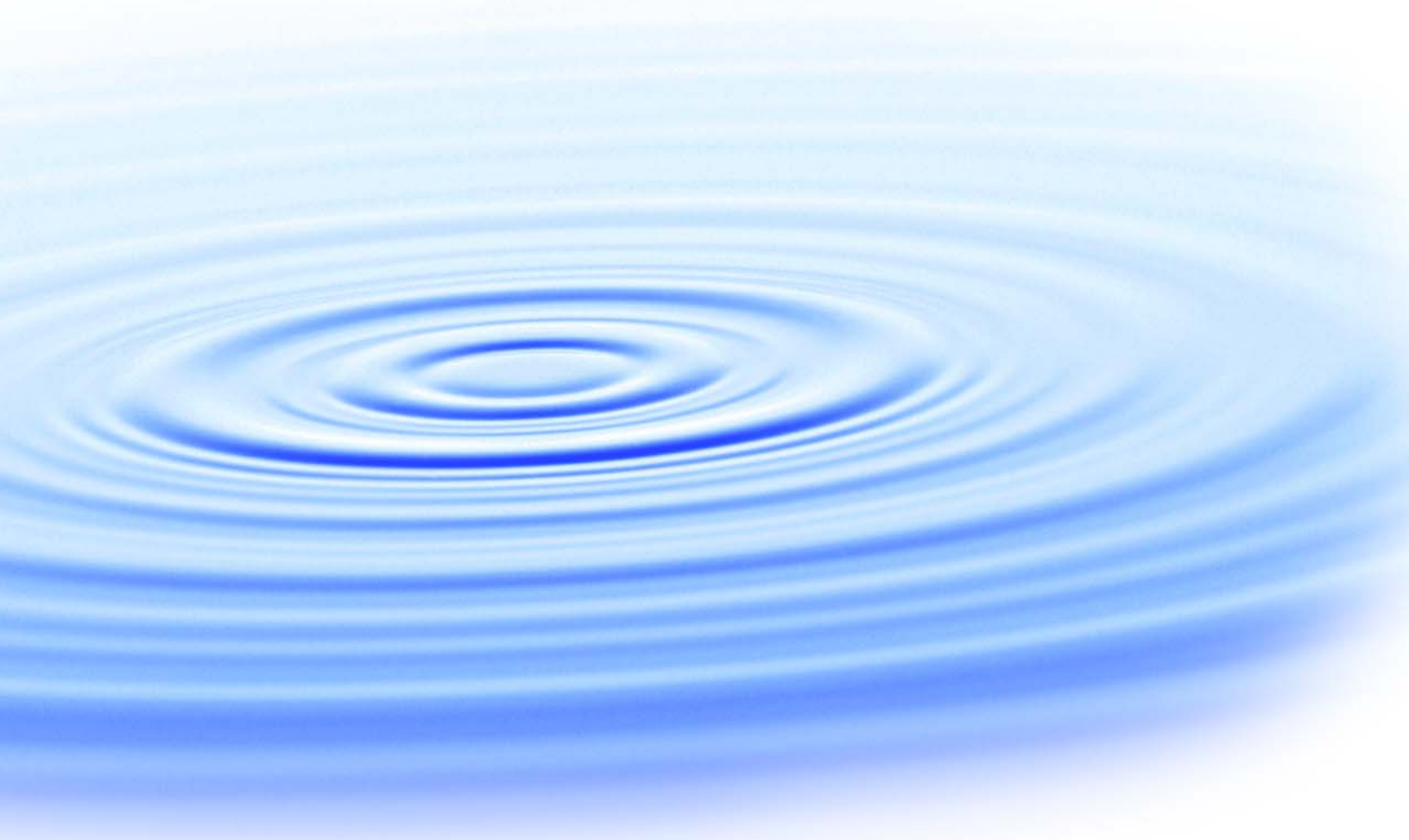




National Database of Water Reuse Facilities Summary Report



**WaterReuse
Foundation**

**National Database of Water
Reuse Facilities Summary
Report**

About the WateReuse Foundation

The mission of the WateReuse Foundation is to conduct and promote applied research on the reclamation, recycling, reuse, and desalination of water. The Foundation's research advances the science of water reuse and supports communities across the United States and abroad in their efforts to create new sources of high quality water through reclamation, recycling, reuse, and desalination while protecting public health and the environment.

The Foundation sponsors research on all aspects of water reuse, including emerging chemical contaminants, microbiological agents, treatment technologies, salinity management and desalination, public perception and acceptance, economics, and marketing. The Foundation's research informs the public of the safety of reclaimed water and provides water professionals with the tools and knowledge to meet their commitment of increasing reliability and quality.

The Foundation's funding partners include the U.S. Bureau of Reclamation, the California State Water Resources Control Board, the Southwest Florida Water Management District, and the California Department of Water Resources. Funding is also provided by the Foundation's Subscribers, water and wastewater agencies, and other interested organizations. The Foundation also conducts research in cooperation with the Global Water Research Coalition.

National Database of Water Reuse Facilities Summary Report

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ACRONYMS

AWWA	American Water Works Association
FDEP	Florida Department of Environmental Protection
MUD	Municipal Utilities District
NPDES	National Pollutant Discharge Elimination System
PAC	Project Advisory Committee
SWIM	State Water Implementation Management (CA)
SWRCB	State Water Resources Control Board (CA)
TAC	Technical Advisory Committee

FOREWORD

The WateReuse Foundation, a nonprofit corporation, sponsors research that advances the science of water reclamation, recycling, reuse, and desalination. The Foundation funds projects that meet the water reuse and desalination research needs of water and wastewater agencies and the public. The goal of the Foundation's research is to ensure that water reuse and desalination projects provide high-quality water, protect public health, and improve the environment.

A Research Plan guides the Foundation's research program. Under the plan, a research agenda of high-priority topics is maintained. The agenda is developed in cooperation with the water reuse and desalination communities, including water professionals, academics, and Foundation Subscribers. The Foundation's research focuses on a broad range of water reuse research topics including the following:

- Defining and addressing emerging contaminants;
- Public perceptions of the benefits and risks of water reuse;
- Management practices related to indirect potable reuse;
- Groundwater recharge and aquifer storage and recovery;
- Evaluating methods for managing salinity and desalination; and
- Economics and marketing of water reuse.

The Research Plan outlines the role of the Foundation's Research Advisory Committee (RAC), Project Advisory Committees (PACs), and Foundation staff. The RAC sets priorities, recommends projects for funding, and provides advice and recommendations on the Foundation's research agenda and other related efforts. PACs are convened for each project and provide technical review and oversight. The Foundation's RAC and PACs consist of experts in their fields and provide the Foundation with an independent review, which ensures the credibility of the Foundation's research results. The Foundation's Project Managers facilitate the efforts of the RAC and PACs and provide overall management of projects.

The Foundation's primary funding partners are the U.S. Bureau of Reclamation, the California State Water Resources Control Board, the Southwest Florida Water Management District, the California Department of Water Resources, Foundation Subscribers, water and wastewater agencies, and other interested organizations. The Foundation leverages its financial and intellectual capital through these partnerships and funding relationships. The Foundation is also a member of two water research coalitions: the Global Water Research Coalition and the Joint Water Reuse & Desalination Task Force.

This publication is the result of a study sponsored by the Foundation and is intended to communicate the results of this research project. The goal of this project was to develop a National Database of Water Reuse Facilities to encourage, improve, and disseminate information regarding the practice of water reuse. The project aimed to create a comprehensive database of reuse programs and facilities across the United States that can be used by agencies, utilities, consultants, and reuse water customers to advance the practice and implementation of water reuse at the local, regional, state, and national levels.

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State of Utah Department of Environmental Quality, Dan Griffin
State of Virginia Department of Environmental Quality, Lily Choi
State of Washington Department of Ecology, Katharine Cupps
State of Wisconsin Department of Natural Resources, Susan Sylvester

While data exist in the completed National Database for utilities that reside in states other than those listed above, only the agencies in the states listed above responded to requests for information.

The Project Team included Mr. Jack Bryck, Mr. Trevor Lindley, Mr. Rajesh Prasad, Mr. Esteban Azagra, and Mr. Steve Davis, all of Malcolm Pirnie, Inc., and Mr. Tom Helgeson, Mr. Guy Carpenter, Mr. Michael Read, Ms. Christianne Castleberry, and Ms. Susan Koenig, all of HDR Engineering, as well as Dr. James Crook, Water Reuse Consultant.

The Project Team would also like to acknowledge the valued assistance of Mr. David York, Water Reuse Coordinator of the Florida Department of Environmental Protection, and Dr. Dan Okun, Kenan Professor of Environmental Engineering, Emeritus, University of North Carolina.

CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

As America's water supplies are increasingly taxed, the need to develop safe, reliable alternative water resources is becoming increasingly apparent. Because the nation's wastewater discharge is continuous and relatively well controlled, the recycled water derived from it represents one of the most reliable water supplies available. The practice of using recycled water for nonpotable applications reduces demands on other resources, encourages a higher level of control over the fate of pollutants, and minimizes discharges to fresh water sources. In addition to the effluent from wastewater treatment and water reclamation plants that treat sanitary sewage, there is an increasing trend to develop poor-quality groundwater, industrial brine and process concentrates, and storm water discharges into reliable alternative supplies. However, until now, there has been no consolidated source of information about the nation's reuse efforts to encourage, improve, and disseminate information regarding the practice of water reuse. The WateReuse Foundation (WRF) has taken the initiative to develop a comprehensive database of nationwide reuse programs and facilities that can be used by agencies, utilities, consultants, and reuse water customers to advance the practice and implementation of water reuse at the local, regional, state, and national levels. The team of Malcolm Pirnie, Inc., and HDR Engineering was retained by the WRF to prepare this report on the National Database of Water Reuse Facilities.

1.2 BACKGROUND

The number of utilities practicing water reuse is increasing in the United States in response to increasingly stringent receiving water discharge requirements, increased demand for limited availability of renewable water resources, regulatory incentives, and decreased public acceptance for using potable water resources for nonpotable end uses. These drivers are increasing the diversity of end uses of recycled water. Consequently, there are more requests from various customer groups for a drought-resistant, reliable supply of consistent quality reclaimed water. The continued success of reusing water is dependent upon the practice being demonstrated as safe, efficient, and economically acceptable for its intended end uses.

While the growth of water reuse is ongoing, the expansion has been fragmented by the lack of a comprehensive source of statistics and information about reuse programs and facilities. Although extensive knowledge exists, it has not been captured in a single, widely available source. The primary reasons for this information gap include the lack of a federal agency with an overarching regulatory mandate and a limited number of independently commissioned national studies. The absence of a comprehensive reservoir of reuse facility data has forced regulators, utilities, water resource planners, design engineers, equipment suppliers, and others involved in water reclamation projects to rely largely on personal or anecdotal experience, market research, and other disjointed or indirect sources to obtain reuse information. The WateReuse Foundation initiative to develop the National Database of Water Reuse Facilities is critical to promote reuse and help foster more efficient and economical water reclamation planning, as well as to prevent the counterproductive dissemination of misinformation. Other benefits of the National Database of Water Reuse Facilities include the following:

- Facilitating networking between water reuse facility planners and water reuse utilities
- Identifying information gaps for future research efforts
- Identifying state-of-the-art practices and procedures for different reuse applications
- Allowing states without reuse databases to more effectively track the reclamation facilities within their respective jurisdictions
- Helping to characterize the economic landscape of water reuse (e.g., How much does it cost? How much revenue is generated? What savings are realized by the reduction of wastewater discharge, partially offsetting the cost of reuse, etc.?)
- Developing a comprehensive list of end uses of recycled water as a function of water quality
- Providing contacts, within the reuse industry, to potential end users who are considering the use of reclaimed water

1.3 PROJECT OBJECTIVES

The National Database of Water Reuse Facilities project was sponsored research intended to help fulfill the mission and overall objective of the Foundation by designing, developing, and populating a database that stores critical elements defining the practice of water reuse as it exists in the nation. The database is the heart of a Web-enabled software application built upon water reuse business principles that were established by all members of the Project Team, including the consultant/contractor, utility stakeholders, and the WRF Project Advisory Committee (PAC).

The Web-enabled application includes the following:

- A database with reuse data gathered from state water reuse regulatory agencies and water reuse utilities
- A survey instrument used as a tool to collect reuse data and populate the database
- As it will be a Web-based tool that will be available from the Internet after completion of the project, it will allow water reuse utilities to update their reuse data at any time to allow the database to remain current
- Query and reporting functions allowing users to ask questions of the data, such as:
 - What percentage of reclaimed water in my state is being used for industrial or agricultural applications? What percentage is being recharged?
 - What are typical public relations approaches that could be used to educate the community on water reuse in my area?
 - Who could my utility contact to investigate what public relation efforts have been the most well received?
 - What is the average rate that utilities in my area are charging users for reclaimed water?
- Database design documentation for the Foundation's use in maintaining the database and a summary report highlighting notable findings from the data collection

1.4 DATABASE LIMITATIONS

The data in the database have been supplied by individual water reuse utilities that made the effort in 2006 to go online and complete the Online Questionnaire. On an individual state-wide basis, the data captured in the database are incomplete because not all water reuse utilities in each state completed the Online Questionnaire. The database should not be used for reporting state activities. The water reuse utility data as provided in this report are current

as of August 2006. This report does not reflect any changes to the data in the WaterReuse Foundation's online database after August 2006.

Figure 1.1 is a flow chart of the overall approach to the project. The numbered items in the flow chart are described more completely:

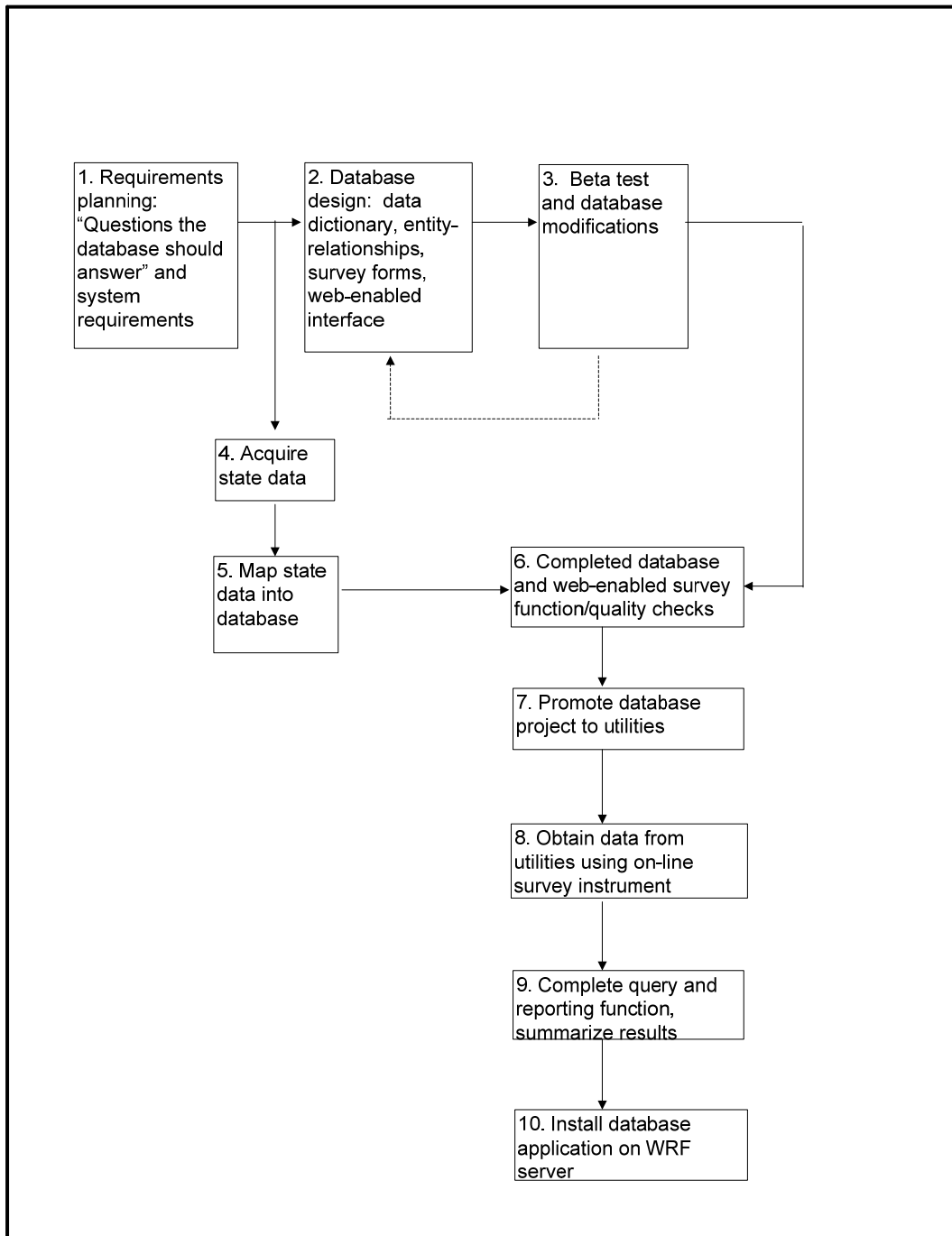


Figure 1.1. National Database of Water Reuse Facilities Project Approach.

CHAPTER 2

PROJECT APPROACH

2.1 REQUIREMENTS PLANNING

The WRF, Malcolm Pirnie, HDR Engineering, and members of the WRF Project Advisory Committee (PAC) and the Malcolm Pirnie Technical Advisory Committee (TAC, which included several utility representatives) met August 30–31, 2004, and identified the most common water reuse-related questions they believed the database needed to answer. These questions formed the basis for the online survey instrument and database design.

2.2 DATABASE DESIGN

The National Database of Water Reuse Facilities consists of several components that enable it to be a water reuse program planning and comparison tool. The database is organized by utility name, with distribution system and treatment facility information associated with the respective utility. The tool is a customized software application that includes the following:

- A relational database containing water reuse program and facility data
- A Web-enabled/online interface for utilities to enter their program and facility data
- A Web-enabled/online interface for users to query the data
- Administrative controls
- Security features
- Documentation on the design of the physical database, entity relationship diagrams, and a data dictionary

2.3 BETA TEST AND DATABASE MODIFICATIONS

The Project Team engaged over 30 utilities throughout the country who have active reuse programs. These utilities pledged in-kind support to review early versions of the database and Web-enabled software. They entered their reuse-related data into the online survey tool and provided comments on ease of use and other suggestions for improvement. The database and survey instrument were modified based on their feedback, prior to launching the project promotion campaign to the water reuse utilities. The results of the beta test were used to modify the database and update the Web-enabled survey interface.

2.4 ACQUIRE STATE DATA

State regulatory agencies in all 50 states (and also one large Native American tribe and Puerto Rico) were contacted and asked to provide data for the project, with the expectation that many would have data on water reuse utilities that could be mapped into the National Database of Water Reuse Facilities structure. Particular effort was focused on acquiring data from Arizona, California, Florida, Texas, and Washington, states known to contain many water reuse utilities. Of the 50 states, only 20 provided data. Of the 20 states that provided data, only 18 were able to provide useful data with information specific to water reuse utilities, as follows:

- Arizona
- Arkansas
- California
- Colorado
- Florida
- Georgia
- Illinois
- Kentucky
- Nevada
- New Jersey
- New Mexico
- North Carolina
- South Carolina
- Texas
- Utah
- Virginia
- Washington
- Wisconsin

The other two states provided data related to pretreatment programs, National Pollutant Discharge Elimination System (NPDES) permits, and other wastewater treatment permit-related data. The State of Hawaii responded to the request to participate but referred the Project Team to a water reuse website in lieu of providing a list of water reuse utilities. The website listed water reuse projects and the reclaimed water purveyor but no additional contact information. Twenty-nine states did not respond to several requests for water reuse utility data. Over 1250 utilities were identified as having water reuse programs by the 18 states that provided data. Additional water reuse program information was obtained by the Project Team as a result of promoting the project at various national, state, and local conferences. To improve the water reuse utility data returns in California, The Cadmus Group, Inc., was retained to approach and assist water reuse utilities in providing their reuse utility and facility data. These data were provided to the WRF and were uploaded by the WRF to the National Database of Water Reuse Facilities.

2.5 MAP STATE DATA

The water reuse utility data from the states were subjected to a quality and applicability check and subsequently mapped into the National Database of Water Reuse Facilities fields. This involved identifying data fields in the state databases that matched the required fields in the new national database. General utility data, including contact information and facility data (if available from a state), were uploaded into the database prior to the utility survey.

2.6 COMPLETE DATABASE AND SURVEY FUNCTION

A utility contact was identified for each utility. A simple computer program was used to create and assign unique user identifiers and passwords to each utility contact. In some cases, the same utility contact was identified for multiple utilities, which required manual correction to the user identifiers to ensure they were unique.

2.7 PROMOTE PROJECT

A project promotion plan was prepared and approved by the WRF to contact, educate, and request the assistance of the over 1250 utilities identified through state databases as having water reuse programs. Utilities were contacted in two phases using introduction letters from the WRF and a Data Collection Guide to help them prepare for entering data through the Web-enabled survey instrument. A dedicated, project-specific e-mail address and telephone hotline were established to respond to inquiries from utilities about the project, the database, and the online survey. The WRF provided incentives for utilities to participate, including discounts on WaterReuse Association conference registration, publications, and access to the completed database. Additionally, a water-filled mouse pad was provided to each utility contact as a gesture of appreciation and a reminder of their role in the project.

2.8 OBTAIN UTILITY DATA

Utilities were provided with a Data Collection Guide, which was essentially a hard copy of the data entry forms, to assist with the data gathering effort. Most utilities that completed the data entry process used the Data Collection Guide. Some utilities had problems accessing the online survey and instead provided their completed Data Collection Guide to the Project Team for data entry. Project Team members in Texas provided data entry services for many of the Texas utilities, based on their strong relationships with them. Contact information and general information about the utility that were originally provided by state agencies were updated, if necessary, during the data entry process. The submitted utility data were reviewed for data entry issues. If there were any perceived data issues, the utility was contacted for direction.

2.9 COMPLETE QUERY FUNCTION AND SUMMARIZE RESULTS

During the utility survey period, the Project Team developed two Web-enabled standard reports that allowed the Project Team and the user community to query the data and print database reports. The two standard reports are the Summary of Utility and Reclaimed Water Facility and the Summary of Reclaimed Water Use by End Use Category. An example of the information generated based on the status of the database as of August 2006 is presented in Appendix C.

2.10 INSTALL APPLICATION

The final database application, including all database, survey, query, administration, and security features, was installed on a WRF server for continual use by the reuse community.

CHAPTER 3

ONLINE QUESTIONNAIRE

3.1 ONLINE QUESTIONNAIRE DEVELOPMENT

The WRF, WRF's PAC, Malcolm Pirnie's TAC, and the Project Team met together at Workshop Number 1 in Phoenix on August 30–31, 2004, to discuss the requirements of the database. This meeting included a number of discussion points and consensus agreements. The discussion was focused through four memorandums:

- Memorandum Number 1: Summary of State Water Reuse Database Survey
- Memorandum Number 2: State of Florida Database
- Memorandum Number 3: Proposed Questions the National Database Should Answer
- Memorandum Number 4: Database Mock-Up

Attendees at Workshop Number 1 are summarized in Table 3.1.

Table 3.1. Summary of Workshop Number 1 Attendees

Name	Affiliation
Mr. Jack Bryck	Malcolm Pirnie, Inc., Project Manager
Mr. Wade Miller	WateReuse Foundation
Mr. Jeff Mosher	WateReuse Foundation
Mr. Bob Bastian	U.S. EPA, PAC Member
Ms. Susan Martella	U.S. Bureau of Reclamation, PAC Member
Ms. Lauren Walker-Coleman	Florida Department of Environmental Protection, PAC Member
Mr. Eric Rosenblum	City of San Jose, PAC Member
Dr. Fawzi Karajeh	California Dept. Water Resources
Ms. Karen Dotson	Tucson Water, TAC Member
Mr. Dan Pedersen	Austin Water Utility, TAC Member
Mr. Bradley Hill	City of Peoria, TAC Member
Ms. Diana Rivera	Palm Beach County, TAC Member
Ms. Fabiola Amarillas	City of San Diego, TAC Member
Mr. Steve Rossi	City of Phoenix, TAC Member
Mr. Don Bell and Mr. Matthew Hodge	Arizona Dept. Environmental Quality, TAC Members
Mr. Guy Carpenter	HDR Engineering, Team Member
Mr. Tom Helgeson	HDR Engineering, Team Member
Mr. Trevor Lindley	Malcolm Pirnie, Team Member
Mr. Rajesh Prasad	Malcolm Pirnie, Team Member
Mr. Esteban Azagra	Malcolm Pirnie, Team Member
Mr. Tom Arn	Malcolm Pirnie, Workshop Facilitator
Mr. Hy Pomerance	Malcolm Pirnie, Workshop Facilitator
Mr. Steve Davis	Malcolm Pirnie, Team Member

Relevant to the objective, design, and content of the database were two key findings:

1. The workshop attendees refined the goal of the database: Help communities to learn and plan water reuse programs.
2. The workshop attendees discussed questions the database should answer. The WRF in their original Request for Proposals and Malcolm Pirnie/HDR in their proposal and interview noted that capturing all information related to the water reuse industry was not feasible. It was agreed that common questions the user community may ask must drive the function, design, and content of the database. The database must be designed with well-documented features to allow for future addition of data elements. The initial layout, function, and data query results, however, were to be focused on the set of common questions the WRF, PAC, TAC, and Project Team identified as being important.

The WRF proposed a set of questions in their original Request for Proposals; these questions and others were refined and grouped by the Project Team and presented and discussed by the Workshop Number 1 attendees. The attendees split into working groups and evaluated the questions in one of four prioritization categories:

1. Essential
2. Important
3. Nice to have
4. Should not be included

During the discussion of the questions, recommendations on verbiage, presentation, and question variations were received.

Draft Number 1 of “Questions the Database Should Answer” was prepared after Workshop Number 1. Draft Number 1 was uploaded to the project communication website on October 8, 2004, and WRF’s Project Advisory Committee and Malcolm Pirnie’s Technical Advisory Committee were asked to provide comments by October 22, 2004. Comments were received from four members of the TAC and PAC. Based on the comments received, Draft Number 2 was prepared, incorporating the comments; the final “Questions the Database Should Answer” report was completed on November 26, 2004.

3.2 DEVELOPMENT OF THE WATER AGENCY SURVEY MODULE

The purpose of the utility survey was to collect basic data to populate the National Database of Water Reuse Facilities. Work on the development of the Survey Module began after agreement was reached on the “Questions the Database Should Answer.” Development of a data dictionary which identified the data fields needed to answer the questions was completed on November 26, 2004. A database was created in Microsoft SQL Server from the data model representing the data dictionary. This database was designed to capture information in two groups of tables; the first group is intended to store data that are gathered on the utilities, and the second group contains look-up data (e.g., a list of potential treatment technologies, list of different possible reclaimed water uses, etc.). This database forms the data repository for the project and the permanent data store for WRF.

Alpha testing of the online Survey Module was completed to provide unit-level quality assurance. This included an internal technical quality review of the application by the WRF and Dr. James Crook.

The Survey Module was made available for beta testing to 44 reuse utilities on February 8, 2005, with a requested deadline for completion of the survey by February 22, 2005. To facilitate online access for the beta testing utilities, a roles-and-rights-based security framework was created. A follow-up e-mail was sent to all utilities on February 23, 2005. A hard copy of the Data Collection Guide (questionnaire), which mirrored the questions asked in the online Survey Module, was sent to the larger utilities. Data were generally required from several individuals within the organization, and the hard copy was intended to be in the coordination of the data collection before the utility contact person went online to complete the questionnaire.

The questionnaire and online Survey Module were revised on March 31, 2005, based on feedback obtained from the beta test utilities. Of the 44 utilities that agreed to beta testing, 32 beta test utilities entered data into the online survey (75% response rate) and 10 utilities did not. Of the 32 that signed on to the online survey, 21 water reuse utilities fully completed the online survey (48% response rate), 2 utilities partially completed the survey, and 9 water reuse utilities did not complete the survey (20% response rate).

3.3 ONLINE DATA QUESTIONNAIRE OVERVIEW

The feedback comments were compiled, and a comprehensive set of changes to the questionnaire and online Survey Module were made. A memorandum entitled “Beta Test Results” summarizing key findings from the beta test survey of selected utilities was submitted to the WRF on April 25, 2005. A copy of the final questionnaire accompanies this final report as Appendix A.

The basic data field in the Survey Module is the water reuse “utility.” The water reuse utility is the organization that owns, manages and is permitted to operate a water reuse facility. The database differentiates between utilities that are either production, distribution, or production and distribution. The principal subdata field for each water reuse utility is a water reuse facility (or facilities, depending on whether a water reuse utility has more than one facility).

The database has six major sections labeled 1 through 6, as follows:

- Section 1 – Utility General Information
- Section 2 – Utility Program Management Information
- Section 3 – Reuse Benefits, Challenges, and User Feedback Information
- Section 4 – Utility Facility Form
 - Section 4A – Production Facility Form
 - Section 4B – Distribution Facility Form
- Section 5 – Reclaimed Water Use and Utility Rate Information
- Section 6 – Utility Contact Information

Table 3.2 summarizes the content description and the number of data fields for Sections 1 through 6. There are a total of 73 data fields in the Water Reuse Foundation Survey Module. If a water reuse utility has more than one facility, then Sections 4A and 4B are completed multiple times to capture the number of facilities the individual water reuse utility operates.

Table 3.2. Summary of the Online Data Questionnaire

Major Section	Content Description	Number of Data Fields
1: Utility General Information	<ul style="list-style-type: none"> • Utility name • Type of utility (production, distribution, or production and distribution) • Primary contact information (city, street, zip code, phone, website, service area, service area population) 	11
2: Utility Program Management Information	<ul style="list-style-type: none"> • Cross-connection program • Public education program • Percentage of total water demand met by reclaimed water • Financial incentives 	7
3: Reuse Benefits, Challenges, and User Feedback Information	<ul style="list-style-type: none"> • Identification of benefits to the utility in implementing a water reuse program (from list of 8 items) • Water reuse challenges (from list of 6 items) • Feedback to utility from reclaimed users (from list of 12 items) 	3
4: Utility Facility Form	<ul style="list-style-type: none"> • Facility information for each facility within a utility (name, type, address, city, zip code, phone, website) 	6
4A: Production Facility	<ul style="list-style-type: none"> • Facility production (capacity, annual production, capital cost, operation and maintenance costs) • Water source (from list of 6 sources) • Treatment technologies (from list of 38 items for pretreatment, organic removal, nitrogen removal, phosphorus removal, advanced treatment, solids handling, disinfection) 	8
4B: Distribution Facility	<ul style="list-style-type: none"> • Amount of water delivered per year • Total length of distribution pipe • Total system storage • Type of system storage (from list of six items) • Capital cost • Operation and maintenance costs 	8
5: Reclaimed Water Use and Utility Rate	<ul style="list-style-type: none"> • Reclaimed water end use by each facility operated by a utility (from list of 17 reclaimed water end uses) 	17 per facility
6: Utility Contact Information	<ul style="list-style-type: none"> • Utility contact information 	13
TOTAL		73

Upon revision of the questionnaire, the online Survey Module was placed online.

3.4 DATABASE QUERY MODULE

The database Query Module is the component of the software for the National Database of Water Reuse Facilities that allows the data to be queried. Along with the Survey Module, it forms the core of the software. This module's goal is to allow the database users to query the data in the database in a logical, easy, and organized manner and to retrieve information. Given the critical nature of the module, the development of the module was treated as a subproject. It followed all the best practices of software development that form a part of the "Waterfall Method" that was outlined in the project approach submitted to WRF. This process was done between October 2005 and January 2006.

In the first phase, the Project Team analyzed the data that were collected by the Survey Tool and the suggestions given by the PAC and TAC during the workshop in August 2004. A list of query groups and specific questions within the query groups that would fulfill the requirements of the project were developed. This was developed using MS PowerPoint templates. After completion of the draft template, the senior quality control members of the Project Team reviewed and provided comments. Following this, the Query Module was released to the PAC and TAC for their review and comments. Comments received were included in the final version.

The second step was to develop a broad program version (HTML) that would capture the approved questions and query groups. This step involved detailed software design and development of the module and testing. Once the basic development was completed, the Query Module was placed on the project website and the PAC and TAC members were requested to review and comment on the HTML version. The Project Team performed two demonstrations to the WRF Project Team. The comments received from the PAC, TAC, and WRF Project Team were incorporated in the Query Module.

After completion of the HTML version, which included the comments from both the PAC and TAC, the revised version was released to the team of in-kind utilities for their review and comments. On December 6, 2005, about 30 organizations were requested to beta test the Query Module. Eight organizations, including the City of Austin, Denver Water, City of Pompano Beach, City of Peoria, City of Tempe, City of San Jose, State of Florida, and Tucson Water, as well as Dr. Bauman Sheikh provided comments. Based on the review comments, final changes were made to the Query Module on January 9, 2006.

3.5 APPLICATION DESIGN REPORT

The team developed an Application Design Report which was submitted to the WRF as the National Database of Water Reuse Facilities Application Design Report, Volume 2. The Application Design Report is a compilation of the technical design of the application, instructions for the users of the application on accessing the different components of the website, and a set of files and directories that enable technical staff to look at the application code modules and the Java classes.

This report consists of four sections, as follows:

1. Business Requirements
2. Technical Specifications
3. User's Guide
4. Javadoc for Application Modules (CD)

The details about the four sections of the Application Design Report follow.

3.5.1 Business Requirements

The purpose of the Business Requirements section is to provide an overview of the database requirements that were defined by the WateReuse Foundation PAC and the Malcolm Pirnie TAC through a series of discussions and a workshop. The document provides information on the purpose of the application developed in the project, its goals, and critical success factors. Furthermore, it also describes how the application will enhance collecting and obtaining water reuse-related data. It also provides guidelines on the functionality of the Web application and its database.

3.5.2 Technical Specifications

The Technical Specifications section of the Application Design Report provides guidelines on the technical design of this application, including the database design, its entity relationship diagram, software architecture, navigation structure, directory structure, and notes on plug-in and application security. This document is used in conjunction with the Business Requirements section and the Javadoc. It is the guideline for developing the application code.

3.5.3 User's Guide

The application User's Guide section of the Application Design Report provides instructions for accessing the different components of the website. It lays out the navigation structure of the website, specifically describing how users can query the data and input data. It also describes the steps for security and system administration of the application. It is a useful reference for users, especially when they have questions on how to use the application.

3.5.4 Javadoc for Application Modules

This section of the Application Design Report is a set of files and directories that provide the WRF with the application code modules and the Java classes. It is useful for application enhancement and software maintenance in the future.

CHAPTER 4

POPULATING THE DATABASE

The process of obtaining reuse facility data and populating the database involved a number of phases and approaches, as summarized in this chapter.

4.1 WATER REUSE UTILITY CONTACT DATA

In August 2004, a memorandum explaining the National Database of Water Reuse Facilities project and a survey was sent by mail and e-mail to each of the 50 states and several Native American Nation agencies that regulate water quality, wastewater treatment plants, or reclaimed water reuse. The aim was to assess the availability and format of state reuse data and request that it be shared with the WRF project.

The list of State agency contacts was provided by Mr. David York, Water Reuse Coordinator of the Florida Department of Environmental Protection. The list did not include State agency contact information for all states, and some of the information was out of date. Project Team staff conducted a search on the Internet to increase the completeness of the state agency contact information. Only seven of the states responded to the August 2004 memorandum by October 2004, and only 6 states (California, Colorado, Florida, Nevada, Texas, and Washington) provided data on water reuse utilities by October 2004.

In October 2004, follow-up letters requesting data on water reuse facilities, utilities, and programs were sent to the state contacts for all agencies that had not responded to the August 2004 memorandum. In February 2005, an e-mail containing an Excel data entry spreadsheet and an electronic copy of the October 2004 letter was sent to every state contact. E-mail tracking functions of Microsoft Outlook were used to determine the fate of the e-mail messages sent to the state agency contacts. The e-mail message was reported by Outlook to be “not deliverable” to three agencies, “deleted without having been read” by five agencies, and “read” by the remaining agencies.

Further investigation revealed that several agency contacts had to get permission to release the data, some refused to release the data, and one agency required the completion of an “Authorization Application for Water Sector Critical Infrastructure Data” before data would be released. Correspondence by e-mail and phone calls was necessary to explain the intended use of the data and to encourage participation. Ultimately, useful data regarding water reuse utilities were received from 18 states, as follows:

- Arizona
- Arkansas
- California
- Colorado
- Florida
- Georgia
- Illinois
- Kentucky
- Nevada
- New Jersey

- New Mexico
- North Carolina
- South Carolina
- Texas
- Utah
- Virginia
- Washington
- Wisconsin

The quality and amount of data associated with each state's water reuse utility varied and sometimes could not be matched to data fields in the project Survey Module. The Project Team also presented papers at several conferences, symposia, and workshops to publicize the project and seek water reuse utility participation.

4.2 POPULATE THE DATABASE

The data obtained from the state agencies were evaluated to determine the common data fields in the state databases and the WRF Survey Module data fields. Some issues with the state data included the following:

- Some States simply provided lists of entities which have NPDES or other discharge permits. It was not clear in some cases whether the state-identified entity was a utility or if the utility was engaged in the reuse of water. Follow-up contact of the agency, and in some cases the utility, by the Project Team was necessary to clarify the uncertainty.
- Editing the State databases was necessary to remove nonutility entities and those utilities that were verified as nonreuse utilities.
- The water reuse contact information received from some of the state regulatory agencies was incorrect, and Project Team letters were returned "undeliverable."
- Very few of the state water reuse data fields matched the WRF data fields in the Survey Module.
- The data associated with every state, except Florida, were generally more than 1 to 2 years old or were basic contact and permit information with no data fields that would match the WRF data fields.

The state data received from the 18 responding states were consolidated into one Excel spreadsheet and formatted to allow ease in preparing electronic scripts to readily upload into the National Database of Water Reuse Facilities. Except for Florida and California, the data fields provided by the state agencies generally did not match the data fields in the National Database of Water Reuse Facilities. In most cases, only the contact information from the state databases was matched to the WRF data fields.

The Project Team developed a software program to assign unique user identifiers and passwords to each water reuse utility identified in the consolidated state data set. From this list, mailing labels and form letters were generated and sent in May 2005 to over 1000 utilities that informed them of the National Database project and requested their participation in completing the online Survey Module. The package submitted to each reuse utility included information to inform them about the National Database project and its importance to the water reuse industry and to request their voluntary participation in the project. Each utility was provided with the website address where the online survey could be accessed. The

Project Team contact information and a helpline phone number were provided to assist the utilities with any software or hardware issues they may have experienced while completing the Survey Module.

A National Database help line phone number and e-mail address were established to promptly assist with any questions or issues raised by the responding water reuse utilities while completing the Survey Module. In addition, HDR Project and Marketing Managers from offices around the country reviewed the utility lists for the states in which their offices resided and called their client contacts to advise them of the project and encourage their participation. Known reuse utilities that were not in the state-provided reuse utility lists were contacted and assigned user identifiers and passwords, and their contact information was uploaded to the Survey Module. The project Web Administrator tracked the utility responses on a weekly basis.

Over 100 mailings were returned because the address did not exist or the occupant of the address was not the intended occupant. Additional research was done to correct addresses or locate new office addresses. In June 2005, a second notification and request letter were sent to all utility contacts, along with a newsletter of the National Database of Water Reuse Facilities project and a specially designed water-filled computer mouse pad as a thank you gift for each contact's participation. Over 300 phone calls and e-mail messages were fielded and addressed data entry and how the data would be used. Follow-up phone calls were made to utility contacts in the five critical states (Arizona, California, Florida, Texas, and Washington) to encourage their participation.

The following sections provide detailed information regarding the efforts associated with populating the database with utility data from each of the five critical states of Arizona, California, Florida, Texas, and Washington. Section 4.2.6 describes the database population effort for the remaining states.

4.2.1 Arizona

The State of Arizona Department of Environmental Quality provided a list of utilities with water reuse permits. The State of Arizona required that a data release form be executed before the water reuse utility permitting information could be released to the Project Team. The list included 663 utilities, treatment facilities, and reclaimed water customers and contained internal tracking information and contact information. The Project Team edited this list to 97 utilities. There were about 10 data fields, including contact information, for each utility in the Arizona water reuse data provided by the State. This compares to the 73 data fields in the National Database of Water Reuse Facilities.

Reuse utility representatives were contacted to request their participation in the development of the database by entering data for the remaining data fields using the Survey Module. On occasion, particularly when utility representatives could not access or did not want to use the online Survey Module, members of the Project Team accessed a utility's account in the Survey Module to update information on behalf of the utility. In an effort for the Project Team to track the progress of the data entry process, a counter was built into the Survey Module that indicated when a utility's account had been accessed for data entry.

As of August 2006, the accounts of 22 Arizona water reuse utilities, or about 22% of the utilities, had been accessed through the Survey Module. In some cases, only contact

information may have been updated. Appendix D records the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in the National Database. For Arizona, data for each category was provided for 13 utilities, which indicates the data entry process was not completed for all 22 Arizona utilities whose accounts were accessed. The accounts for the remaining water reuse utilities contain only the data uploaded by the Project Team in the Survey Module, which includes contact information. The list of the Arizona water reuse utilities for which someone had gone online by August 2006 and accessed the Survey Module is as follows:

- 1 ARIZONA AMERICAN WATER COMPANY
- 2 BUCKSKIN SANITARY DIST
- 3 CITY OF CASA GRANDE
- 4 CITY OF CHANDLER
- 5 CITY OF EL MIRAGE
- 6 CITY OF ELOY
- 7 CITY OF FLAGSTAFF
- 8 CITY OF GLENDALE
- 9 CITY OF MESA
- 10 CITY OF PHOENIX
- 11 CITY OF TEMPE
- 12 CITY OF WINSLOW
- 13 FAR WEST WATER AND SEWER
- 14 LAKE HAVASU CITY WASTEWATER DIVISION
- 15 LITCHFIELD PARK SERVICE COMPANY
- 16 PALO VERDE UTILITY COMPANY
- 17 TOWN OF CAVE CREEK
- 18 TOWN OF EAGER
- 19 TOWN OF GILBERT
- 20 TOWN OF ORO VALLEY
- 21 TUCSON WATER
- 22 TURNER RANCHES WATER & SANITATION COMPANY

4.2.2 California

The California State Water Resources Control Board (SWRCB) provided information to the Project Team from the State Water Information Management (SWIM) system, which includes all the water reuse data collected by the nine Regional Water Quality Control Boards. Mr. Michael Baker of the SWRCB queried the SWIM database from SWRCB Data Managers in November 2004. The SWRCB completed and reviewed the data as part of a quality assurance effort and submitted the subsequent data to the Project Team in December 2004.

Accompanying the data query was an explanation of the query, a document explaining the type codes within the SWIM query, and a summary of contact information from the SWIM query.

Also provided by the SWRCB was a 2002 Statewide Survey of Facilities where reclaimed water is used. SWRCB personnel indicated that the survey was not up to date and was incomplete. It was carried out by a combination of SWRCB staff, temporary personnel, and college students. These two databases were combined by the Project Team. Duplications were eliminated. However, some data from the 2002 Survey were actually facility data, not utility data. Data from the SWIM database superseded data from the 2002 Survey.

There are a total of 248 California water reuse utilities in the Survey Module. Reuse utility representatives were contacted to request their participation in the development of the database by entering data for the remaining data fields using the Survey Module. On occasion, particularly when utility representatives could not access or did not want to use the online Survey Module, members of the Project Team accessed a utility's account in the Survey Module to update information on behalf of the utility. In an effort for the Project Team to track the progress of the data entry process, a counter was built into the Survey Module that indicated when a utility's account had been accessed for data entry.

As of August 2006, the accounts of 69 California water reuse utilities, about 27% of the utilities, had been accessed through the Survey Module. In some cases, only contact information may have been updated. Appendix D records the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in the National Database. For California, data for each category was provided for 56 utilities, which indicates the data entry process was not completed for all 69 California utilities whose accounts were accessed. The accounts for the remaining water reuse utilities contain only the contact data uploaded by the Project Team in the Survey Module. The list of the California water reuse utilities for which someone had gone online by August 2006 and accessed the Survey Module is as follows:

- 1 95 CEG/CEOES
- 2 BIG BEAR AREA REGIONAL WASTEWATER AGENCY
- 3 CALIFORNIA MEN'S COLONY
- 4 CAMROSA WATER DISTRICT
- 5 CARMEL AREA WASTEWATER DISTRICT
- 6 CARMEL VALLEY CSD
- 7 CASTAIC LAKE WATER AGENCY
- 8 CENTRAL BASIN MUN WATER DIST
- 9 CENTRAL CONTRA COSTA SANITARY DISTRICT
- 10 CITY OF BURBANK
- 11 CITY OF CALISTOGA PUBLIC WORKS CENTER
- 12 CITY OF CORONA
- 13 CITY OF LIVERMORE
- 14 CITY OF MADERA WTP
- 15 CITY OF PETALUMA
- 16 CITY OF ROSEVILLE DRY CREEK WWTP
- 17 CITY OF SAN DIEGO -- MWD
- 18 CITY OF SAN JOSE, ENVIRONMENTAL SERVICES DEPARTMENT
- 19 CITY OF SANTA ROSA

- 20 CITY OF SCOTTS VALLEY
- 21 CITY OF SIMI VALLEY
- 22 CITY OF SUNNYVALE PUBLIC WORKS FIELD SERVICES
- 23 CITY OF TULARE
- 24 CORONA DEPARTMENT OF WATER AND POWER
- 25 CUCAMONGA COUNTY WATER DISTRICT
- 26 DELTA DIABLO SANITATION DISTRICT
- 27 DUBLIN SAN RAMON SERVICES DISTRICT
- 28 EAST BAY MUNICIPAL UTILITY DISTRICT
- 29 ELSINORE VALLEY MUN WATER DISTRICT
- 30 FAIRFIELD-SUISUN SEWER DISTRICT
- 31 GLENDALE WATER AND POWER
- 32 GOLETA SANITARY DISTRICT
- 33 IRONHOUSE SANITARY DISTRICT
- 34 IRVINE RANCH WATER DISTRICT
- 35 LAGUNA COUNTY SANITATION DISTRICT (SANTA BARBARA COUNTY)
- 36 LAKESIDE IRRIGATION WATER CO.
- 37 LAS VIRGENES MUNICIPAL WATER DISTRICT
- 38 LONG BEACH WATER DEPARTMENT
- 39 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
- 40 MARIN MUNICIPAL WATER DISTRICT
- 41 MENDOCINO CSD
- 42 MONTEREY REG WATER POLLUTION CONTROL AGENCY
- 43 MOULTON NIGUEL WATER DISTRICT
- 44 NAPA SANITATION DISTRICT
- 45 OLIVENHAIN MUNICIPAL WATER DISTRICT
- 46 ORANGE COUNTY SANITATION DISTRICT
- 47 ORANGE COUNTY WATER DISTRICT
- 48 PADRE DAM MUNICIPAL WATER DISTRICT
- 49 QUINCY COMM SERV DIST
- 50 RANCHO CALIFORNIA WATER DISTRICT
- 51 ROSAMOND COMMUNITY SERVICES DISTRICT
- 52 SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT
- 53 SAN DIEGUITO WATER DISTRICT
- 54 SANTA BARBARA PUBLIC WORKS DEPARTMENT, CITY OF
- 55 SANTA MARGARITA WATER DISTRICT
- 56 SEWERAGE AGENCY OF SOUTHERN MARIN
- 57 SOCWA JOINT REGIONAL TREATMENT PLANT
- 58 SONOMA COUNTY WATER AGENCY
- 59 SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

- 60 SOUTH TAHOE PUBLIC UTILITY DISTRICT
- 61 TAHOE-TRUCKEE SANITATION AGENCY
- 62 TRIUNFO SANITATION DISTRICT
- 63 VALLECITOS WATER DISTRICT
- 64 VENTURA COUNTY WATERWORKS DISTRICT #1
- 65 VENTURA UTILITIES - WASTEWATER
- 66 VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
- 67 WALNUT VALLEY WATER DISTRICT
- 68 WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
- 69 WEST BASIN MUNICIPAL WATER DISTRICT

To improve the water reuse utility data returns in California, The Cadmus Group, Inc., was retained by the WRF under separate contract to approach and assist California water reuse utilities in providing their reuse utility and facility data. These data were provided by the Cadmus Group directly to the WRF and were uploaded by the WRF to the National Database of Water Reuse Facilities.

4.2.3 Florida

The Florida Department of Environmental Protection (FDEP) Database of Water Reuse Utilities is very comprehensive. As part of the State permitting system, every utility is required to update its water reuse data in the state water reuse database every January. There are 294 Florida water reuse utilities in the 2004 Florida database. Twenty data fields in the WRF database are common with data fields in the WRF Survey Module. A significant effort was expended by the Project Team working with State of Florida to prepare and write software to upload the common data fields between the State database and the National Database of Water Reuse Facilities. It was very labor-intensive, as the structure of the State of Florida database differs significantly from that of the National Database of Water Reuse Facilities.

The Florida water reuse utilities in the National Database of Water Reuse Facilities from which data were obtained from the Florida Database of Water Reuse Utilities as of August 2006 are listed in Appendix B. Reuse utility representatives were contacted to request their participation in the development of the database by entering data for the remaining data fields using the Survey Module. On occasion, particularly when utility representatives could not access or did not want to use the online Survey Module, members of the Project Team accessed a utility's account in the Survey Module to update information on behalf of the utility. In an effort for the Project Team to track the progress of the data entry process, a counter was built into the Survey Module that indicated when a utility's account had been accessed for data entry.

As of August 2006, the accounts of 294 Florida water reuse utilities, or 100% of the utilities, had been accessed through the Survey Module. In some cases, only contact information may have been updated. Appendix D records the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in the National Database. For Florida, data for each category was provided for 280 utilities, which indicates the data entry process was not completed for all 294 Florida utilities whose accounts were accessed. The accounts for the remaining water reuse utilities contain only the data uploaded by the Project Team in the Survey Module, which includes contact information. The list of

the Florida water reuse utilities for which someone had gone online by August 2006 and accessed the Survey Module is as follows:

- 1 6 CES/CEV
- 2 ADVENT CHRISTIAN VILLAGE
- 3 ALAFAYA UTILITIES, INC.
- 4 ALOHA UTILITIES, INC.
- 5 AQUA UTILITIES FLORIDA, INC.
- 6 AQUASOURCE SERVICES, LP.
- 7 AQUASOURCE, INC.
- 8 AVALON UTILITIES
- 9 BAKER CORRECTIONAL INSTITUTION
- 10 BANYAN CONSTRUCTION & DEVELOPMENT, INC.
- 11 BAREFOOT BAY WATER & SEWER
- 12 BAY COUNTY COMMISSIONERS
- 13 BAY LAUREL CENTER COMMUNITY DEVELOPMENT
- 14 BLUE UTILITIES
- 15 BONITA SPRINGS UTIL., INC.
- 16 BREVARD CO. WATER RESOURCES
- 17 BROWARD CO. NORTH REGIONAL
- 18 CAMP INN ASSOCIATES, LLC
- 19 CAPE CANAVERAL AIR FORCE BASE
- 20 CAREFREE COUNTRY CLUB
- 21 CEDAR KEY WATER & SEWER
- 22 CENTURY REALTY FUNDS, INC.
- 23 CHARLOTTE CO. UTILITIES
- 24 CHARLOTTE CORRECTIONAL INSTITUTION
- 25 CHATEAU PROPERTIES, INC.
- 26 CITRUS COUNTY UTILITIES
- 27 CITY OF ALACHUA
- 28 CITY OF ALTAMONTE SPRINGS
- 29 CITY OF APOPKA
- 30 CITY OF ARCADIA
- 31 CITY OF AUBURNDALE
- 32 CITY OF AVON PARK
- 33 CITY OF BARTOW
- 34 CITY OF BELLE GLADE
- 35 CITY OF BELLEVIEW
- 36 CITY OF BOCA RATON
- 37 CITY OF BOWLING GREEN
- 38 CITY OF BRADENTON, PUBLIC WORKS

- 39 CITY OF BRANFORD
- 40 CITY OF BROOKSVILLE
- 41 CITY OF BUSHNELL
- 42 CITY OF CAPE CANAVERAL
- 43 CITY OF CAPE CORAL-WRFS
- 44 CITY OF CARRABELLE
- 45 CITY OF CASSELBERRY
- 46 CITY OF CHIEFLAND
- 47 CITY OF CLEARWATER
- 48 CITY OF CLERMONT
- 49 CITY OF CLEWISTON
- 50 CITY OF COCOA
- 51 CITY OF COCOA BEACH WRF DEPT.
- 52 CITY OF COTTONDALE
- 53 CITY OF CRYSTAL RIVER
- 54 CITY OF DADE CITY
- 55 CITY OF DAYTONA BEACH
- 56 CITY OF DEFUNIAK SPRINGS
- 57 CITY OF DELAND
- 58 CITY OF DELTONA
- 59 CITY OF DUNEDIN WD
- 60 CITY OF DUNNELLON
- 61 CITY OF EDGEWATER
- 62 CITY OF EUSTIS
- 63 CITY OF EVERGLADES CITY
- 64 CITY OF FORT MEADE
- 65 CITY OF FORT MYERS CENTRAL
- 66 CITY OF FORT WALTON BEACH
- 67 CITY OF FREEPORT
- 68 CITY OF GULF BREEZE
- 69 CITY OF HAINES CITY
- 70 CITY OF HAWTHORNE
- 71 CITY OF HOLLY HILL
- 72 CITY OF HOLLYWOOD
- 73 CITY OF HOMESTEAD
- 74 CITY OF INVERNESS
- 75 CITY OF JACKSONVILLE BEACH
- 76 CITY OF KISSIMMEE - WATER RESOURCES
- 77 CITY OF LABELLE
- 78 CITY OF LAKE ALFRED

- 79 CITY OF LAKE BUTLER
- 80 CITY OF LAKE CITY
- 81 CITY OF LAKE WALES
- 82 CITY OF LAKELAND
- 83 CITY OF LARGO-ENV. SERVICES
- 84 CITY OF LEESBURG
- 85 CITY OF LIVE OAK
- 86 CITY OF MADISON
- 87 CITY OF MARCO ISLAND
- 88 CITY OF MARY ESTHER
- 89 CITY OF MELBOURNE
- 90 CITY OF MIRAMAR
- 91 CITY OF MONTICELLO
- 92 CITY OF MOUNT DORA
- 93 CITY OF NAPLES
- 94 CITY OF NEWBERRY
- 95 CITY OF NORTH PORT
- 96 CITY OF OCALA
- 97 CITY OF OCOEE
- 98 CITY OF OLDSMAR
- 99 CITY OF ORLANDO
- 100 CITY OF ORMOND BEACH
- 101 CITY OF PAHOKEE
- 102 CITY OF PALATKA
- 103 CITY OF PALM BAY UTIL.
- 104 CITY OF PALM COAST
- 105 CITY OF PALMETTO
- 106 CITY OF PANAMA CITY BEACH
- 107 CITY OF PLANT CITY
- 108 CITY OF PLANTATION
- 109 CITY OF POMPANO BEACH
- 110 CITY OF PORT ORANGE
- 111 CITY OF PORT ST. LUCIE, UTILITIES
- 112 CITY OF QUINCY
- 113 CITY OF ROCKLEDGE WWTF
- 114 CITY OF SANFORD, FL
- 115 CITY OF SANIBEL
- 116 CITY OF SARASOTA
- 117 CITY OF SEBRING
- 118 CITY OF SOUTH BAY

- 119 CITY OF ST. AUGUSTINE
- 120 CITY OF ST. CLOUD
- 121 CITY OF ST. PETERSBURG
- 122 CITY OF STARKE
- 123 CITY OF SUNRISE
- 124 CITY OF TALLAHASSEE
- 125 CITY OF TAMPA, DEPT. OF SANITARYSEWERS
- 126 CITY OF TARPON SPRINGS
- 127 CITY OF TAVARES
- 128 CITY OF TITUSVILLE
- 129 CITY OF TRENTON
- 130 CITY OF UMATILLA
- 131 CITY OF VENICE
- 132 CITY OF VERO BEACH
- 133 CITY OF WILDWOOD WWTF
- 134 CITY OF WILLISTON
- 135 CITY OF WINTER GARDEN
- 136 CITY OF WINTER HAVEN
- 137 CITY OF WINTER HAVEN-GARDEN GROVE
- 138 CITY OF WINTER PARK
- 139 CITY OF WINTER SPRINGS
- 140 CITY OF ZEPHYRHILLS
- 141 CLAY COUNTY UTIL. AUTHORITY
- 142 CLERBROOK RESORTS, INC.
- 143 COLLIER COUNTY PUBLIC UTILITIES
- 144 CONTINENTAL UTILITY, INC.
- 145 CYPRESS LAKES UTILITIES, INC.
- 146 DESTIN WATER USERS, INC.
- 147 DJJ MAINTENANCE
- 148 DUNES COMMUNITY DEV. DISTRICT
- 149 EASTPOINT WATER & SEWER
- 150 EGLIN AIR FORCE BASE
- 151 ENGLEWOOD WATER DISTRICT
- 152 ENVIROSYSTEMS INTERNATIONAL, INC.
- 153 ESCAMBIA CO. UTILITY AUTHORITY
- 154 FIDDLESTICKS COUNTRY CLUB
- 155 FINLEY ENGINEERING GROUP
- 156 FLORIDA DEPARTMENT OF CORRECTIONS
- 157 FLORIDA GOVERNMENTAL UTILITY AUTHORITY
- 158 FLORIDA STATE PRISON WWTF

159 FLORIDA WATER SERVICES CORPORATION
160 FOREST UTILITIES, INC.
161 FORT PIERCE UTILITY AUTHORITY
162 FOUNTAIN LAKES SEWER CORPORATION
163 GAINESVILLE REGIONAL UTILITIES
164 GASPARILLA ISLAND WATER ASSOC.
165 GATEWAY SERVICES DISTRICT
166 GENERAL UTILITIES CORP.
167 GOOD SAMARITAN RETIREMENT VILLAGE
168 GRENELEFE GOLF AND TENNIS RESORT
169 GROVELAND WWTF
170 GRU
171 GULF ENV. SERVICES, INC.
172 HARBOUR RIDGE POA
173 HERNANDO COUNTY UTILITIES
174 HIGHLANDS COUNTY
175 HILLSBOROUGH CO. WATER DEPT.
176 HOLLEY NAVARRE WATER SYSTEM
177 HUNTER'S RIDGE UTIL. CO.
178 HURLBURT FIELD AIR FORCE BASE
179 IMMOKALEE WATER & SEWER DISTRICT
180 INDIAN RIVER COUNTY
181 INDIANTOWN COMPANY, INC.
182 IRP MARRIOTT RESORT UTILITY
183 JANUS HOTEL AND RESORTS, INC.
184 JAX UTILITIES MANAGEMENT, INC.
185 JEA
186 JEFFERSON CORRECTIONAL INSTITUTION
187 KEY WWTPS OPS. SERVICES
188 LABRADOR UTILITIES, INC.
189 LAKE GROVE UTILITIES
190 LAKE WALES UTIL. CO., LTD.
191 LANARK VILLAGE WATER & SEWER
192 LEE CO. UTILITIES
193 LOXAHATCHEE RIVER DISTRICT
194 MANATEE CO. UTILITIES
195 MARION COUNTY UTILITIES
196 MARTIN CO. ENV. SERVICES
197 MARTIN CORRECTIONAL INSTITUTION
198 MATANZAS SHORES OWNER'S ASSOCIATION, INC.

199 MIAMI-DADE WATER & SEWER
200 MID-FLORIDA LAKES MANUFACTURED HOME COMMUNITIES
201 MILES GRANT WATER & SEWER
202 NASSAU BOARD OF COUNTY COMMISSIONERS
203 NAVY PUBLIC WORKS CENTER
204 NEW SMYRNA UTILITIES COMMISSION
205 NORMANDY VILLAGE UTILITY COMPANY
206 NORTH BEACH UTILITIES, INC.
207 NORTH FORT MYERS UTIL., INC.
208 NORTH PENINSULA UTILITY CORPORATION
209 NORTH SUMTER UTILITIES
210 NVOC REGIONAL SEWER BOARD, INC.
211 OKALOOSA COUNTY WATER & SEWER
212 OKEECHOBEE UTIL. AUTHORITY
213 OKEELANTA CORPORATION
214 OMI
215 ORANGE COUNTY UTILITIES
216 PACE WATER SYSTEM
217 PALM BEACH COUNTY WATER UTILITIES DEPARTMENT
218 PASCO CO. UTILITIES
219 PEBBLE CREEK UTILITIES, INC.
220 PHOENIX ENVIRONMENTAL TECHNOLOGIES
221 PINELLAS CO. UTIL. - OPERATIONS DEPT.
222 POLK COUNTY UTILITIES
223 PORT OF THE ISLANDS COMMUNITY IMPROVMENT DISTRICT
224 RAINBOW SPRINGS UTILITIES, INC.
225 REALNOR HALLANDALE, INC
226 REEDY CREEK ENERGY SERVICES INC
227 REESE, MACON & ASSOCIATES
228 REGIONAL UTILITIES
229 RESOURCE CONSERVATION SYSTEMS
230 ROLLING OAKS UTIL., INC.
231 RSPI MHC LLC
232 S. CENTRAL REGIONAL WWT& DISPOSAL BOARD
233 SAILFISH POINT UTIL. CORP.
234 SANDY CREEK UTILITY SERVICES, INC.
235 SANLANDO UTILITIES CORP.
236 SANTA ROSA COUNTY
237 SARASOTA CO. UTIL. DEPT.
238 SAVANNA CLUB PROPERTY OWNER ASSC., INC.

239 SEACOAST UTIL. AUTHORITY
240 SEMINOLE COUNTY
241 SEMINOLE COUNTY ENVIRONMENTAL SERVICES
242 SEVERN TRENT-AVATAR
243 SFWMD
244 SIDNEY COLEN & ASSOCIATES, LTD.
245 SILVER SPRINGS REGIONAL
246 SOUTH MARTIN REGIONAL UTILITY
247 SOUTH WALTON UTIL. CO., INC.
248 SOUTHLAKE UTILITIES, INC.
249 SOUTHSIDE OF FLORIDA, LLA
250 ST. JOHNS COUNTY
251 ST. LUCIE COUNTY UTILITIES
252 SUN COMMUNITIES, INC.
253 SUN LAKE ESTATES HOMEOWNERS ASSOCIATION
254 SW FLORIDA WATER MGMT DISTRICT
255 SYNAGRO SOUTHEAST
256 TALQUIN ELECTRIC COOPERATIVE
257 THE GREAT OUTDOORS RV/GOLF RESORT
258 THE SI UTILITY GROUP, INC.
259 THOUSAND TRAILS RESORTS
260 TOHO WATER AUTHORITY
261 TOWN OF BELLEAIR
262 TOWN OF GREENVILLE
263 TOWN OF GRETNA
264 TOWN OF HAVANA
265 TOWN OF JAY
266 TOWN OF JENNINGS
267 TOWN OF MAYO
268 TOWN OF SNEADS
269 TOWN OF ZOLFO SPRINGS
270 TROST INTERNATIONAL LTD INC
271 TYMBER CREEK UTILITIES, INC
272 UNITED WATER FLORIDA
273 UNIVERSITY OF FLORIDA
274 US SUGAR CORPORATION
275 USFILTER OPERATING SERVICES
276 UTIL. COMMISSION, CITY OF NEW SMYRNA BEACH
277 UTILITIES, INC. OF EAGLE RIDGE
278 UTILITIES, INC. OF HUTCHINSON ISLAND

- 279 UTILITIES, INC. OF LONGWOOD
- 280 UTILITIES, INC. OF PENNBROOKE
- 281 UTILITIES, INC. OF SANDALHAVEN
- 282 VILLAGE OF ROYAL PALM BEACH
- 283 VILLAGE OF WELLINGTON
- 284 VOLUSIA COUNTY UTILITIES
- 285 WAKULLA COUNTY
- 286 WALSH ENV. SERVICES, INC.
- 287 WATER CONSERV II
- 288 WEDGEFIELD UTILITIES, INC.
- 289 WILDER DEVELOPMENT CORPORATION
- 290 WILSONMILLER, INC.
- 291 WINCO UTILITIES, INC.
- 292 WINDEMERE UTILITY COMPANY
- 293 WYNNE BLDG. CORP.
- 294 ZELLWOOD STATION COOP, INC.

4.2.4 Texas

The Texas Commission on Environmental Quality provided a text file of permit data. These data were combined with a database provided by the Texas Water Development Board that consisted of water use survey data collected through 2000. The Project Team organized the combined data into an Excel spreadsheet with query headings. A software script was written to electronically transfer the Texas water reuse data to the WRF Survey Module. The combined Texas database was organized by water reuse utility and contained contact, permit, facility, and effluent disposal information for 342 utilities. There are about 10 data fields in the Texas database. This list was edited to 329 utilities.

Reuse utility representatives were contacted to request their participation in the development of the database by entering data for the remaining data fields using the Survey Module. On occasion, particularly when utility representatives could not access or did not want to use the online Survey Module, members of the Project Team accessed a utility's account in the Survey Module to update information on behalf of the utility. In an effort for the Project Team to track the progress of the data entry process, a counter was built into the Survey Module that indicated when a utility's account had been accessed for data entry.

As of August 2006, the accounts of 50 Texas water reuse utilities, or about 15% of the utilities, had been accessed through the Survey Module. In some cases, only contact information may have been updated. Appendix D records the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in the National Database. For Texas, data for each category was provided for 41 utilities, which indicates the data entry process was not completed for all 50 Texas utilities whose accounts were accessed. The remaining water reuse utilities have only contact information in the WRF Survey Module. The list of the Texas water reuse utilities for which someone had gone online by August 2006 and accessed the Survey Module is as follows:

- 1 C N P UTILITY DIST.
- 2 CANYON REGIONAL WATER AUTHORITY
- 3 CITY OF ABILENE
- 4 CITY OF AMARILLO
- 5 CITY OF AUSTIN
- 6 CITY OF BEEVILLE
- 7 CITY OF BERTRAM WATER DEPT.
- 8 CITY OF BRECKENRIDGE
- 9 CITY OF CANYON
- 10 CITY OF CEDAR PARK
- 11 CITY OF CLEBURNE
- 12 CITY OF CONVERSE
- 13 CITY OF GARLAND
- 14 CITY OF GEORGETOWN
- 15 CITY OF GOLDTHWAITE
- 16 CITY OF KAUFMAN
- 17 CITY OF KERRVILLE
- 18 CITY OF LITTLEFIELD
- 19 CITY OF MARBLE FALLS
- 20 CITY OF MCALLEN
- 21 CITY OF MIDLAND
- 22 CITY OF MILES
- 23 CITY OF MINERAL WELLS
- 24 CITY OF ODESSA
- 25 CITY OF PALESTINE
- 26 CITY OF PFLUGERVILLE
- 27 CITY OF PHARR
- 28 CITY OF ROUND ROCK
- 29 CITY OF SAN ANGELO
- 30 CITY OF SAN MARCOS
- 31 DENTON CO FRESHWATER SUPPLY DIST
- 32 EL PASO WATER UTILITIES
- 33 GUADALUPE-BLANCO RIVER AUTHORITY
- 34 HARRIS CO MUD #130
- 35 HARRIS CO MUD #391
- 36 HARRIS CO, MUD # 23
- 37 HARRIS CO, MUD # 383
- 38 HARRIS CO, WCID 84
- 39 HARRIS CO. MUD # 5
- 40 HORSEPEN BAYOU MUD
- 41 HURST. CREEK MUD
- 42 LAKEWAY MUD
- 43 LLANO CO. MUD # 1
- 44 LOWER COLORADO RIVER AUTHORITY
- 45 MONTGOMERY CO. MUD #24

- 46 NEW BRAUNFELS UTILITIES
- 47 RIVER PLACE ON LAKE AUSTIN
- 48 SAN ANTONIO RIVER AUTHORITY
- 49 SAN ANTONIO WATER SYSTEMS
- 50 SHEPPARD AFB

4.2.5 Washington

The Washington Department of Ecology provided a list of constructed reclaimed water projects and a list of planned reclaimed water projects. The lists were organized by facility, or “project,” not by utility. The lists contained five data fields, including contact information, water quality data, process data, and capacity data.

Eleven utilities were identified on the constructed reclaimed water projects list. Reuse utility representatives were contacted to request their participation in the development of the database by entering data for the remaining data fields using the Survey Module. Occasionally, members of the Project Team accessed a utility’s account in the Survey Module to update information on behalf of the utility. In an effort for the Project Team to track the progress of the data entry process, a counter was built into the Survey Module that indicated when a utility’s account had been accessed for data entry.

As of August 2006, the accounts of six Washington water reuse utilities, or about 55% of the utilities, had been accessed through the Survey Module. In some cases, only contact information may have been updated. Appendix D records the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in the National Database. For Washington, data for each category was provided for five utilities, which indicates the data entry process was not completed for all six Washington utilities whose accounts were accessed. The account for the remaining water reuse utility contains only the data uploaded by the Project Team in the Survey Module, which includes contact information. The list of the Washington water reuse utilities for which someone had gone online by August 2006 and accessed the Survey Module is as follows:

- 1 CITY OF CHENEY
- 2 CITY OF EPHRATA
- 3 CITY OF OLYMPIA
- 4 CITY OF ROYAL CITY
- 5 CITY OF SNOQUALMIE
- 6 CITY OF YELM, WA
- 7 KING COUNTY
- 8 KING COUNTY DNRP WASTEWATER TREATMENT DIVISION
- 9 LOTT ALLIANCE
- 10 MASON COUNTY DEPT. OF UTILITIES AND WASTE MGMT.
- 11 WA DEPT OF ECOLOGY

4.2.6 Other States

Reuse utility data collected from the remaining 13 states that provided information were in similar condition as those described for the five core states described above. A summary of the water reuse utilities in each state is provided in Appendix B.

There was no standard format for reuse utility data provided by the states. Further, each state's regulatory structure is different and some states regulate utilities and end users, and so permit rosters included both for some states. Some states provided data sets that included utilities that did not necessarily have water reuse programs but did have NPDES permits, pretreatment programs, or other discharge permits. Therefore, the Project Team used the data provided by most states as a starting point for water reuse utility data collection. The lack of uniformity of water reuse utility data among the states further highlights the need for the National Database.

4.3 DATABASE STATUS

To date there are about 1221 water reuse utility contact records in the National Database of Water Reuse Facilities. These utility entries include the water reuse utility data provided by the 18 state regulatory agencies that participated in the project as well as utilities that contacted the Project Team directly and went online and completed the Survey Module. A complete list of the water reuse utilities in the database is provided in Appendix B. Of the 1221 water reuse utility records in the database, 409 utilities (33.5%) have partially completed or totally completed the questionnaire.

Table 4.1 provides a summary by state of the response to the Project Team's request for participation in the project. The first column lists the state. The second column indicates the state's response to the request for water reuse utility data. It should be noted that in some cases several water reuse utilities were not in a state's list of water reuse utilities. These utilities contacted the Project Team to be included in the database.

Table 4.1. Summary of Utility Contacts in the Database by State^a

State	Responded to Inquiry	Provided Reuse Utility Data	Number of Utilities Reported	Number of Utility Accounts Accessed through Survey Module
Alabama			0	0
Alaska			0	0
Arizona	X	X	97	13
Arkansas	X	X	0	0
California	X	X	248	56
Colorado	X	X	5	4
Connecticut			0	0
Delaware			0	0
Florida	X	X	294	280
Georgia	X	X	1	0
Hawaii	X		0	0
Idaho			1	1
Illinois	X	X	4	0
Indiana			0	0
Iowa			0	0
Kansas			0	0
Kentucky	X	X	0	0
Louisiana			0	0
Maine	X		0	0
Maryland			0	0
Massachusetts			0	0
Michigan			0	0
Minnesota	X		0	0
Mississippi			0	0
Missouri			0	0
Montana			0	0
Nebraska			1	0
Nevada	X	X	5	2
New Hampshire			0	0
New Jersey	X	X	14	0
New Mexico	X	X	28	0
New York			0	0
North Carolina	X	X	65	4
North Dakota			0	0
Ohio			1	0
Oklahoma			1	0
Oregon			0	0
Pennsylvania			0	0
Rhode Island			0	0
South Carolina	X	X	69	0
South Dakota			0	0
Tennessee			0	0
Texas	X	X	329	41
Utah	X	X	7	1
Vermont			0	0
Virginia	X	X	4	1
Washington	X	X	11	5
West Virginia			0	0
Wisconsin	X	X	36	1
Wyoming			0	0
TOTAL			1221	409

^aAs of October 2006.

4.4 PROJECT PUBLICITY EFFORTS

In addition to the efforts to acquire water reuse utility contact information through all 50 state water reuse regulatory organizations and the Project Team's efforts to contact each and every water reuse utility by both letter and follow-up phone contact, the Project Team took every available opportunity to attend water reuse conferences and symposia to publicize the project and seek additional opportunities to contact water reuse utilities and request that they participate in the project. The Project Team participated in the following water reuse conferences:

- California Section, WaterReuse Association Annual Meeting, San Diego, CA, February 2005
- American Water Works Association (AWWA), Membrane Technology Conference & Exposition, Phoenix, AZ, March 2005
- New Jersey AWWA Annual Conference, March 2005
- Texas AWWA Annual Conference, April 2005
- Georgia Water & Pollution Control Association Spring Conference, Callaway Gardens, GA, April 2005
- Arizona Water Pollution Control Association, 2005 Annual Conference, Phoenix, AZ, May, 2005
- WaterReuse Foundation 9th Annual Water Reuse Research Conference, Orlando, FL, May 2005
- WaterReuse Association, 20th Annual Water Reuse Symposium, Denver, CO, September 2005
- WEFTEC 2005 Annual Conference, Washington, DC, October–November 2005
- WRF 10th Annual Water Reuse Research Conference, Phoenix, AZ, May 2006
- 21st Annual WaterReuse Symposium, Hollywood, CA, September 10–13, 2006
- CWEA/CSAWWA /WVOA 2006 Tri-Association Conference, Ocean City, MD, August 29–September 1, 2006.

4.5 UPDATING THE SURVEY MODULE BY DATA ENTRY

The power of the WRF National Database of Water Reuse Facilities is that it is online and is accessible with WRF permission at any time for any utility to enter the Survey Module and edit the data for their utility. In other words, the Survey Module data fields can be updated at any time. As a consequence, the query output will be different from time period to time period, depending on how the Survey Module has been edited by individual water reuse utilities.

A password and identifier is needed to enter individual water reuse utility records. The records for the identifier and password for each water utility are maintained by the WRF. To obtain a user identification and password, please contact the WRF.

CHAPTER 5

QUERY ONLINE DATABASE: SUMMARY REPORT FEATURE

This section describes how users of the system can query the National Database. There are three approaches available to query the National Database of Water Reuse Facilities, as follows:

1. **Nationwide Reuse Summaries:** These queries are two standard preformatted reports currently with universal accessibility from the National Database of Water Reuse Facilities website.
2. **Detailed Reuse Summaries:** A more comprehensive querying of the National Database of Water Reuse Facilities is available through the WRF website. Access is restricted by WRF to those with a valid user name and password. A request for a valid user name and password must be made to WRF. The detailed queries are grouped into five categories, as follows:
 - Utility Program Management
 - Reuse Facilities
 - Reclaimed Water Uses
 - Rates
 - Utility Contact information
3. **Tailored Query:** Tailored queries must be done through the WRF National Database of Water Reuse Facilities staff, who do various types of custom queries through Structured Query Language (SQL) software.

The next section provides a brief description of what is contained in each of the query categories noted above.

5.1 SUMMARY REPORT: NATIONWIDE REUSE SUMMARIES

There are two groups of summary reports that are available from the National Database of Water Reuse Facilities:

- Summary Report of Utility and Reclaimed Water Facility
- Summary Report of Reclaimed Water Use By End Use

5.1.1 Summary Report of Utility and Reclaimed Water Facility

The Utility and Reclaimed Water Facility report consists of the following:

- Summary of the number of reuse utilities and number of facilities in the database
- Facility production capacity
- Actual annual production
- Extent of reclaimed water distribution facilities

The summary report provides totals for each state and a total sum for all states. The information displayed includes the following:

- State
- Number of utilities with a record in the National Database
- Number of utilities providing reuse-related data
- Number of facilities with a record in the National Database
- Number of production facilities reporting data
- Reported permitted design capacity of the facilities (million gallons/day, or mgd)
- Reported actual annual reclaimed water production (billions of gallons)
- Number of distribution facilities or systems reporting data
- Reported length of pipe within reclaimed water distribution facility/system (miles)

An example of a summary report from the website based on the data set in the National Database of Water Reuse Facilities, as of September 30, 2006, is included as Appendix C.

5.1.2 Summary Report of Reclaimed Water Use by End Use

The second query group is the “Reclaimed Water Use by End Use” category summary. This query group allows the user to find information about reclaimed water uses and quantities of reuse for applications such as the following:

- Irrigation
- Industrial uses
- Recharge

The summary provides totals by each state and for all states. The information displayed includes the following:

- State
- Irrigation (thousand gallons/year)
- Recharge (thousand gallons/year)
- Industrial (thousand gallons/year)
- Wholesale (thousand gallons/year)
- Commercial (thousand gallons/year)
- Wetlands (thousand gallons/year)

A summary result obtained from the website based on the data set in the National Database of Water Reuse Facilities, as of September 30, 2006, is included as Appendix D.

5.2 SUMMARY REPORT: DETAILED REUSE SUMMARIES

A more comprehensive querying of the National Database of Water Reuse Facilities is available by formal inquiry to the WRF. Currently, access is restricted to those with a valid user name and password. The detailed queries are grouped into five categories, as follows:

- Utility Program Management: The Utility Program Management category can be queried for management programs by either an individual state or all states. This includes information on cross-connection control programs, public outreach

programs, water reuse funding, benefits of water reuse, challenges with implementation of reuse, and the nature of coordination program with neighboring water reuse utilities.

- Reuse Facilities: The Reuse Facilities category can be queried for both production facility (treatment processes, capacity, and cost and source water) and distribution facilities (length of pipe, amount of storage, capacity, and costs), either by individual state or for all states.
- Reclaimed Water Uses: The Reclaimed Water Uses category can be queried for volume summary by various reuse categories and utility summary by reuse categories for either an individual state or all states.
- Rates: The Rates category can be queried for information about reclaimed water rates based on end use categories by individual state or for all states.
- Utility Contact Information: The Utility Contact Information category provides utility contact information. This area includes detailed contact information (name, title, e-mail, phone, fax, and address).

Quick and easy links to websites, such as those for state agencies, regulators, and industry organizations, including the American Water Works Association, the Water Environment Federation, and the WaterReuse Association, are summarized in Appendix E.

5.3 CUSTOM QUERY

A third approach to query the data is by a custom query. This query is accessible to only the WRF Website Administrator. A formal inquiry form must be filled out to complete the query. A Foundation representative will respond within 48 hours to provide a cost estimate of the query.

5.4 ACCESS TO QUERY MODULE

The National Database of Water Reuse Facilities represents a significant investment on the part of the WRF and its Subscribers. The WRF anticipates the database will support its mission objective to create new sources of high-quality water. The cost of using the National Database of Water Reuse Facilities is dependent on the query details. To receive a cost estimate to complete a query, please visit the WRF's website for more information.

APPENDIX A

DATA COLLECTION GUIDE

Note: This guide identifies the data fields in the Survey Module.

DATA COLLECTION GUIDE

WaterReuse Foundation National Database of Water Reuse Facilities

We recognize that you may not know the answers to all the questions in the online survey off the top of your head. Please use this Data Collection Guide to help you assemble the data you will need *before* beginning the online survey form. Based on the feedback we received from the 26 utilities that tested the data entry process, using this Guide will save you time and energy and make the process of gathering and entering the data easier for you. Once the data have been collected, either you or your designees (if you provide them with your user name and password) can enter the data into the online survey. If you would like an electronic version of this form, please request it at watereuse@hdrinc.com.

Section 1: Utility General Information

Utility Name: _____

Type of Utility:

- Only Production Only Distribution Both Production and Distribution

Utility Ownership Type:

- Public Utility Private Utility Special District

Primary Street Address: _____

City: _____ State: _____ Zip Code: _____

General Phone #: () _____

Utility Service Area (sq. miles): _____

Utility Population Served: _____

Utility Website: _____

Section 2: Utility Program Management Information

Do you have a cross-connection control program? Yes No

Do you have a public education program? Yes No

Do you coordinate with neighboring entities practicing water Reuse? Yes No

Year water reuse first implemented: _____

Percentage of total water demand met by reclaimed water within your service area: _____%

Do you provide financial incentives for reclaimed water users? Yes No

Do you extend mains or provide other infrastructure to potential customers to encourage reclaimed water use? Yes No

DATA COLLECTION GUIDE

WaterReuse Foundation National Database of Water Reuse Facilities

Section 3: Reuse Benefits, Challenges, and User Feedback Information

Please check all that apply:

Overall Benefits of Water Reuse for Utility:

- Conserves drinking water
- Decreases permitting requirements
- Good for the environment
- Reduction in dependence on deep well injection
- Cost-effective water
- Energy conservation
- Reduces or eliminates discharge
- Water resource augmentation

Water Reuse Implementation Challenges?

- NONE
- City council or governing board concerns
- Availability of other water resources
- Public perception
- Funding
- Regulatory requirements

Feedback to Utility from Reclaimed Water Users?

- NONE
- Concern with water quality
- High cost of water
- Impact on crops irrigated with reclaimed water
- Impact on plants irrigated with reclaimed water
- Impact on turf irrigated with reclaimed water
- Operations and maintenance issues
- Aesthetics
- Happy with water quality
- Inadequate supply
- Initial investment
- Reasonable cost of water
- Reliable source of water

DATA COLLECTION GUIDE

WaterReuse Foundation National Database of Water Reuse Facilities

Section 4: Utility Facility Form

Please provide information about each facility operated by the utility (make copies of this section and delegate data collection to facility managers, if appropriate). Significant end use facilities, such as recharge projects, are not included here as a facility and should have been entered under the utility reclaimed water use category.

Facility Information	
Facility Name	
Facility Type (production or distribution or both?)	
Street Address	
City, State, Zip	
Facility Phone Number	
Facility Website	

Section 4a: Production Facility Form

Design or Permitted Capacity, with units: _____ af/y cfs cms gpm mgd

Actual Annual Production Capacity, with units: _____ af/y cfs cms gpm mgd

Influent Type: Pumped Only Gravity Only Pumped and Gravity Both

Satellite or End-of-Line Facility? Satellite/Scalping End of Line

Capital Costs: \$ _____ **Year Capital Costs Incurred:** _____

Facility's Annual O&M Costs: \$ _____

Water Sources: Agriculture return flow Storm water Municipal wastewater
 Industrial wastewater Brackish water Poor-quality groundwater

Treatment Technologies Employed (Check all that apply):

- | | | |
|---|--|--|
| <input type="checkbox"/> Pretreatment – Equalization
<input type="checkbox"/> Pretreatment – Grit Removal
<input type="checkbox"/> Pretreatment – Screening
<input type="checkbox"/> Primary Treatment – Chemical Addition
<input type="checkbox"/> Primary Treatment – Sedimentation
<input type="checkbox"/> Organic Removal – Batch Reactors
<input type="checkbox"/> Organic Removal – Fixed Film Process
<input type="checkbox"/> Organic Removal – Lagoons
<input type="checkbox"/> Organic Removal – Suspended Aerobic Bio Treatment
<input type="checkbox"/> Nitro Removal – Bio N de N
<input type="checkbox"/> Nitro Removal – Breakpoint Chlorination
<input type="checkbox"/> Nitro Removal – Gas Stripping
<input type="checkbox"/> Nitro Removal – Selective Ion Exchange | <input type="checkbox"/> Phosphorus Removal – Biological
<input type="checkbox"/> Phosphorus Removal – Chemical Precipitation
<input type="checkbox"/> Secondary Solids Removal – Micro Filtration
<input type="checkbox"/> Secondary Solids Removal - Sedimentation
<input type="checkbox"/> Advanced/Tertiary – Carbon Adsorption
<input type="checkbox"/> Advanced/Tertiary – Chemical precipitation
<input type="checkbox"/> Advanced/Tertiary – Disk filters
<input type="checkbox"/> Advanced/Tertiary – Distillation
<input type="checkbox"/> Advanced/Tertiary – Ion Exchange
<input type="checkbox"/> Advanced/Tertiary – Media Filters
<input type="checkbox"/> Advanced/Tertiary – Nanofiltration
<input type="checkbox"/> Advanced/Tertiary – Reverse Osmosis
<input type="checkbox"/> Advanced/Tertiary – Ultrafiltration | <input type="checkbox"/> Advanced/Tertiary - EDR
<input type="checkbox"/> Disinfection – Chlorine (gas, hypochlorite)
<input type="checkbox"/> Disinfection – Mixed Oxidants
<input type="checkbox"/> Disinfection – Ozone
<input type="checkbox"/> Disinfection – UV
<input type="checkbox"/> Disinfection – Other
<input type="checkbox"/> Solids Handling – Belt Press
<input type="checkbox"/> Solids Handling - Centrifuge
<input type="checkbox"/> Solids Handling – Pumped to Other Facility
<input type="checkbox"/> Solids Handling – Drying Beds
<input type="checkbox"/> Solids Handling - Digestion
<input type="checkbox"/> Solids Handling – Rotary Press |
|---|--|--|

DATA COLLECTION GUIDE

WaterReuse Foundation National Database of Water Reuse Facilities

Section 4b: Distribution Facility Form

Please provide information about the distribution system operated by the utility (if applicable).

System Capacity, with units: _____ af/y cfs cms gpm mgd

Actual Annual Deliveries, with units: _____ af/y cfs cms gpm mgd

Reclaimed Water Distribution System Total Pipe Length (miles): _____

Total Distribution System Storage: _____ af cf cm gal million gal

Reclaimed Water Storage:

- | | |
|---|--|
| <input type="checkbox"/> None | <input type="checkbox"/> Aquifer storage/recovery for later distribution |
| <input type="checkbox"/> Concrete reservoir | <input type="checkbox"/> Lined earthen reservoir |
| <input type="checkbox"/> Steel reservoir | <input type="checkbox"/> Unlined earthen reservoir |

Capital Cost: \$ _____ Date Capital Cost Incurred: _____

Annual O&M Costs: _____

DATA COLLECTION GUIDE

WaterReuse Foundation National Database of Water Reuse Facilities

Section 5: Reclaimed Water Use and Utility Rate Information

Please provide information about each of the uses of reclaimed water produced or distributed by your utility (add more columns to table, if necessary).

Column A: For each type of end use, indicate the number of uses (i.e., specify the units of acres, connections, courses, fields, housing units, or locations).

Column B: For each type of end use, enter the total annual quantity of reclaimed water used (specify units of af/y, cfs, gpm, or mgd).

Column C: For each type of end use, enter the rate charged per unit (specify units of \$/af, \$/cf, \$/cm, \$/1000cm, \$/gallon, \$/1000 gal, or \$/mgd).

Types of Reclaimed Water End Use	A	B	C
Irrigation – Edible Crops			
Irrigation – Nonedible Crops			
Irrigation – Parks and Open Space (turf and landscaping)			
Irrigation – Schools (turf and landscaping)			
Irrigation – Other (turf and landscaping)			
Recharge – Surface Spreading			
Recharge – Injection Wells			
Recharge – Subsurface Infiltration Galleries			
Industrial – Cooling Water			
Industrial – Process Water			
Industrial – High-Purity Use			
Industrial – Boiler Feed			
Industrial – Other			
Commercial/Residential – Irrigation			
Commercial/Residential – Toilet Flushing			
Commercial/Residential – Other			
Natural System Restoration – Wetlands			

DATA COLLECTION GUIDE

WaterReuse Foundation National Database of Water Reuse Facilities

Section 6: Utility Contact Information

Please provide contact information for those in your utility who administer reclaimed water (database will allow multiple contacts).

Utility Contact Name _____

Title _____

Address _____

City, State, Zip _____

Phone Number _____

Does this contact have information on the utility's reuse program? Yes No

Does this contact have information on cross-connection programs? Yes No

Does this contact have information on public education programs for the utility? Yes No

Does this contact have information on water quality for the utility? Yes No

Does this contact have information on the source control program for the utility? Yes No

Does this contact have information on coordination with nearby entities involved in water reuse for the utility? Yes No

Does this contact have information on feedback from end users of the utility? Yes No

APPENDIX B

SUMMARY OF WATER REUSE UTILITIES IN DATABASE

Note: This appendix provides a summary of all the water reuse utilities that have been assigned unique users identifiers and passwords in the WRF database as of August 2006. This assignment allowed them to enter the database online and upload their utility data. All the utilities in this appendix were contacted and asked to participate; however, not all the utilities in listed here went online to enter their utility data.

1	ARIZONA AMERICAN WATER COMPANY	ARIZONA
2	ARIZONA ARMY NATIONAL GUARD	ARIZONA
3	ARIZONA CITY CLUB, INC	ARIZONA
4	ARIZONA DEPT OF CORRECTIONS	ARIZONA
5	ARIZONA SANITARY DISTRICT	ARIZONA
6	ARIZONA WATER COMPANY	ARIZONA
7	BOULDERS CAREFREE SEWER CO	ARIZONA
8	BUCKSKIN SANITARY DIST	ARIZONA
9	BULLHEAD CITY	ARIZONA
10	CAVE CREEK	ARIZONA
11	CITIZENS COMMUNICATIONS COMPANY	ARIZONA
12	CITY OF AVONDALE	ARIZONA
13	CITY OF BENSON	ARIZONA
14	CITY OF BISBEE	ARIZONA
15	CITY OF CASA GRANDE	ARIZONA
16	CITY OF CHANDLER	ARIZONA
17	CITY OF COOLIDGE	ARIZONA
18	CITY OF COTTONWOOD	ARIZONA
19	CITY OF EL MIRAGE	ARIZONA
20	CITY OF ELOY	ARIZONA
21	CITY OF FLAGSTAFF	ARIZONA
22	CITY OF GLENDALE	ARIZONA
23	CITY OF GLOBE	ARIZONA
24	CITY OF MESA	ARIZONA
25	CITY OF PAGE	ARIZONA
26	CITY OF PEORIA	ARIZONA
27	CITY OF PHOENIX	ARIZONA
28	CITY OF PRESCOTT	ARIZONA
29	CITY OF SCOTTSDALE	ARIZONA
30	CITY OF SURPRISE	ARIZONA

31	CITY OF TEMPE	ARIZONA
32	CITY OF TOLLESON	ARIZONA
33	CITY OF WILLCOX	ARIZONA
34	CITY OF WINSLOW	ARIZONA
35	COCONINO COUNTY	ARIZONA
36	COUNTRY CLUB TOWNHOUSE HOA	ARIZONA
37	ECI ENVIRONMENTAL COMPLIANCE INTERNATIONAL, LTD	ARIZONA
38	ENCHANTMENT RESORT WWTF	ARIZONA
39	FAR WEST WATER AND SEWER	ARIZONA
40	FLAGSTAFF MEADOWS SUB	ARIZONA
41	FOREST HIGHLANDS ASSOCIATES	ARIZONA
42	FORT MOHAVE TRIBAL UTILITIES AUTHORITY	ARIZONA
43	FRANCISCO GRANDE RESORT WWTP	ARIZONA
44	GILA RESOURCES	ARIZONA
45	GOLD CANYON SEWER COMPANY	ARIZONA
46	GSA INVESTMENTS LLC	ARIZONA
47	JOHNSON UTILITIES COMPANY	ARIZONA
48	JOSEPH CITY SANITARY DISTRICT	ARIZONA
49	KACHINA VILLAGE IMPROVEMENT DISTRICT	ARIZONA
50	LAKE HAVASU CITY WASTEWATER DIVISION	ARIZONA
51	LITCHFIELD PARK SERVICE COMPANY	ARIZONA
52	MESA DEL SOL COMM WWTP	ARIZONA
53	MIDAS CAPITAL	ARIZONA
54	NAVOTI SEWAGE MGMT SYSTEM WWTP	ARIZONA
55	NORTHERN GILA COUNTY SD	ARIZONA
56	ORBITAL SCIENCES CORPORATION - FACILITIES/OPERATIONS MGR	ARIZONA
57	OUTLETS AT ANTHEM WWTP	ARIZONA
58	PACIFIC ENVIRONMENTAL RESOURCES CORPORATION	ARIZONA
59	PALISADES RANGER STATION WASTEWATER TREATMENT SYSTEM	ARIZONA
60	PALO VERDE UTILITY COMPANY	ARIZONA
61	PEBBLECREEK PROPERTIES LTD	ARIZONA

62	PHELPS DODGE CORPORATION	ARIZONA
63	PICACHO SEWER COMPANY	ARIZONA
64	PIMA COUNTY	ARIZONA
65	PINAL CO. BOARD OF SUPERVISORS	ARIZONA
66	PINETOP-LAKESIDE SANITARY DISTRICT	ARIZONA
67	PRIME RETAIL LP	ARIZONA
68	QUEEN VALLEY SANITARY DISTRICT - WWTP	ARIZONA
69	RIO VERDE UTILITIES	ARIZONA
70	ROADHAVEN RESORT OF APACHE JUNCTION	ARIZONA
71	ROBERT T WILSON FOUNDATION	ARIZONA
72	ROBSON RANCH CASA GRANDE ARIZONA COUNTRY CLUB	ARIZONA
73	SALT RIVER PROJECT	ARIZONA
74	SIERRA NATIONAL CORP.	ARIZONA
75	SIERRA PACIFIC MHP	ARIZONA
76	SONORAN UTILITY SERVICES	ARIZONA
77	SOUTH GRAND CANYON SANITARY DISTRICT	ARIZONA
78	SOUTHLAND SANITATION	ARIZONA
79	SUN LAKES MARKETING LTD PARTNERSHIP	ARIZONA
80	SUNRIDGE CANYON	ARIZONA
81	TIERRA GRANDE UTILITY COOP	ARIZONA
82	TOWN OF BUCKEYE	ARIZONA
83	TOWN OF CAVE CREEK	ARIZONA
84	TOWN OF EAGAR	ARIZONA
85	TOWN OF FLORENCE WWTP	ARIZONA
86	TOWN OF FOUNTAIN HILLS	ARIZONA
87	TOWN OF GILBERT	ARIZONA
88	TOWN OF ORO VALLEY	ARIZONA
89	TOWN OF SUPERIOR	ARIZONA
90	TOWN OF THATCHER	ARIZONA
91	TUCSON WATER	ARIZONA
92	TURNER RANCHES WATER & SANITATION COMPANY	ARIZONA

93	US ARMY	ARIZONA
94	US NPS - GRAND CANYON NP	ARIZONA
95	USDOJ / FEDERAL BUREAU OF PRISONS	ARIZONA
96	VERDE SANTA FE SUNBELT, LLC	ARIZONA
97	WHITE MOUNTAIN LAKE SANITATION INC	ARIZONA

1	95 CEG/CEOES	CALIFORNIA
2	ADAMSON CO.	CALIFORNIA
3	ARVIN CSD, STP	CALIFORNIA
4	ATASCADERO STP	CALIFORNIA
5	BEAR VALLEY COMM SERV DIST STP	CALIFORNIA
6	BEST WESTERN SHIP ASHORE MOTEL	CALIFORNIA
7	BIG BEAR AREA REGIONAL WASTEWATER AGENCY	CALIFORNIA
8	BUREAU OF WATER POLLUTION CONTROL	CALIFORNIA
9	CALIFORNIA AMERICAN WATER COMPANY	CALIFORNIA
10	CALIFORNIA DEPARTMENT OF CORRECTIONS	CALIFORNIA
11	CALIFORNIA DEPARTMENT OF FORESTRY	CALIFORNIA
12	CALIFORNIA MENS COLONY	CALIFORNIA
13	CAMBRIA COMMUNITY SERVICES DISTRICT	CALIFORNIA
14	CAMPS AFFLERBAUGH AND PAIGE STP	CALIFORNIA
15	CAMPS MILLER AND KILPATRICK STP	CALIFORNIA
16	CAMROSA WATER DISTRICT	CALIFORNIA
17	CARLSBAD MUNICIPAL WATER DISTRICT	CALIFORNIA
18	CARMEL AREA WASTEWATER DISTRICT	CALIFORNIA
19	CARMEL LAHAINA UTILITY SERVICES DISTRICT	CALIFORNIA
20	CARMEL VALLEY CSD	CALIFORNIA
21	CASTAIC LAKE WATER AGENCY	CALIFORNIA
22	CENTRAL BASIN MUN WATER DIST	CALIFORNIA
23	CENTRAL CONTRA COSTA SANITARY DISTRICT	CALIFORNIA
24	CHESTER PUD	CALIFORNIA
25	CITY OF BAKERSFIELD	CALIFORNIA

26	CITY OF BARSTOW WRF	CALIFORNIA
27	CITY OF BURBANK	CALIFORNIA
28	CITY OF CALISTOGA PUBLIC WORKS CENTER	CALIFORNIA
29	CITY OF CERES WTF	CALIFORNIA
30	CITY OF CHOWCHILLA WTP	CALIFORNIA
31	CITY OF COALINGA WTP	CALIFORNIA
32	CITY OF CORCORAN WTP	CALIFORNIA
33	CITY OF CORONA	CALIFORNIA
34	CITY OF DELANO WTP	CALIFORNIA
35	CITY OF EXETER	CALIFORNIA
36	CITY OF FERNDALE	CALIFORNIA
37	CITY OF GUSTINE WWTF	CALIFORNIA
38	CITY OF HANFORD WTP	CALIFORNIA
39	CITY OF LAKEPORT WTP	CALIFORNIA
40	CITY OF LANCASTER	CALIFORNIA
41	CITY OF LEMOORE WTP	CALIFORNIA
42	CITY OF LINCOLN WRP	CALIFORNIA
43	CITY OF LINDSAY WWTF	CALIFORNIA
44	CITY OF LIVERMORE	CALIFORNIA
45	CITY OF LODI	CALIFORNIA
46	CITY OF LOS ANGELES DEPT OF WATER & POWER	CALIFORNIA
47	CITY OF LOS BANOS WTP	CALIFORNIA
48	CITY OF LOYALTON WTP	CALIFORNIA
49	CITY OF MADERA WTP	CALIFORNIA
50	CITY OF MANTECA WQCF	CALIFORNIA
51	CITY OF MCFARLAND WTP	CALIFORNIA
52	CITY OF MENDOTA WTP	CALIFORNIA
53	CITY OF MERCED WTF	CALIFORNIA
54	CITY OF MODESTO WQCF	CALIFORNIA
55	CITY OF MONTAGUE	CALIFORNIA
56	CITY OF OCEANSIDE	CALIFORNIA

57	CITY OF ORANGE COVE WTP	CALIFORNIA
58	CITY OF OXNARD WATER DIVISION	CALIFORNIA
59	CITY OF PATTERSON WTP	CALIFORNIA
60	CITY OF PETALUMA	CALIFORNIA
61	CITY OF PLYMOUTH WTP	CALIFORNIA
62	CITY OF PORTERVILLE WTF	CALIFORNIA
63	CITY OF POWAY PUBLIC WORKS	CALIFORNIA
64	CITY OF RED BLUFF	CALIFORNIA
65	CITY OF REDDING	CALIFORNIA
66	CITY OF RIDGECREST	CALIFORNIA
67	CITY OF ROSEVILLE DRY CREEK WWTP	CALIFORNIA
68	CITY OF SAN BERNARDINO WRP	CALIFORNIA
69	CITY OF SAN BUENAVENTURA WTP	CALIFORNIA
70	CITY OF SAN DIEGO - MWD	CALIFORNIA
71	CITY OF SAN JOSE, ENVIRONMENTAL SERVICES DEPARTMENT	CALIFORNIA
72	CITY OF SAN LUIS OBISPO	CALIFORNIA
73	CITY OF SANTA BARBARA P UBLIC WORKS DEPARTMENT	CALIFORNIA
74	CITY OF SANTA ROSA	CALIFORNIA
75	CITY OF SCOTTS VALLEY	CALIFORNIA
76	CITY OF SHAFTER WTP	CALIFORNIA
77	CITY OF SIMI VALLEY	CALIFORNIA
78	CITY OF THOUSAND OAKS	CALIFORNIA
79	CITY OF TULARE	CALIFORNIA
80	CITY OF TURLOCK WQCF	CALIFORNIA
81	CITY OF VICTORVILLE	CALIFORNIA
82	CITY OF VISALIA WATER CONSERVATION PLANT	CALIFORNIA
83	CITY OF WASCO WTP	CALIFORNIA
84	CITY OF WEED	CALIFORNIA
85	CITY OF WOODLAKE WWTF	CALIFORNIA
86	CLARKLAND FARMS	CALIFORNIA
87	COACHELLA VALLEY WATER DISTRICT	CALIFORNIA

88	CORONA DEPARTMENT OF WATER AND POWER	CALIFORNIA
89	COUNTY OF FRESNO	CALIFORNIA
90	COUNTY OF MADERA	CALIFORNIA
91	COUNTY OF SAN DIEGO	CALIFORNIA
92	CUCAMONGA COUNTY WATER DISTRICT	CALIFORNIA
93	CUPERTINO SANITARY DISTRICT	CALIFORNIA
94	CUTLER-OROSI JOINT POWERS WASTEWATER AUTHORITY	CALIFORNIA
95	DELTA DIABLO SANITATION DISTRICT	CALIFORNIA
96	DESERT WATER AGENCY	CALIFORNIA
97	DUBLIN SAN RAMON SERVICES DISTRICT	CALIFORNIA
98	EAST BAY MUNICIPAL UTILITY DISTRICT	CALIFORNIA
99	EASTERN MUNICIPAL WATER DISTRICT	CALIFORNIA
100	EASTERN SIERRA COMMUNITY SERVICES DISTRICT	CALIFORNIA
101	EL DORADO IRRIGATION DISTRICT	CALIFORNIA
102	EL TORO WATER DISTRICT	CALIFORNIA
103	ELSINORE VALLEY MUN WATER DISTRICT	CALIFORNIA
104	ENCINA WASTEWATER AGENCY	CALIFORNIA
105	FAIRFIELD-SUISUN SEWER DISTRICT	CALIFORNIA
106	FALLBROOK PUBLIC UTILITY DISTRICT	CALIFORNIA
107	FRESNO-CLOVIS REGIONAL WASTEWATER RECLAIMED FACILITIES	CALIFORNIA
108	GLENDALE WATER AND POWER	CALIFORNIA
109	GOLDEN STATE VINTERS	CALIFORNIA
110	GOLETA SANITARY DISTRICT	CALIFORNIA
111	GROVELAND COMMUNITY SERVICES DISTRICT	CALIFORNIA
112	HAKKER BROTHERS FARMING RECYCLING PROJECT	CALIFORNIA
113	HALE AVE. RESOURCE RECOVERY FACILITY	CALIFORNIA
114	I-5 UTILITY COMPANY, INC.	CALIFORNIA
115	INLAND EMPIRE UTILITIES AGENCY	CALIFORNIA
116	IRONHOUSE SANITARY DISTRICT	CALIFORNIA
117	IRVINE RANCH WATER DISTRICT	CALIFORNIA
118	IVANHOE PUD	CALIFORNIA

119	JARUPA COMMUNITY SERVICES DISTRICT	CALIFORNIA
120	KERN COUNTY WASTE MANAGEMENT	CALIFORNIA
121	KETTLEMAN CITY CSD	CALIFORNIA
122	LAGUNA COUNTY SANITATION DISTRICT (SANTA BARBARA COUNTY)	CALIFORNIA
123	LAKE COUNTY SANITATION DISTRICT	CALIFORNIA
124	LAKESIDE IRRIGATION WATER CO.	CALIFORNIA
125	LAS GALLINAS VALLEY SANITARY DISTRICT	CALIFORNIA
126	LAS VIRGENES MUNICIPAL WATER DISTRICT	CALIFORNIA
127	LEE LAKE WATER DISTRICT	CALIFORNIA
128	LEONHARDT RANCH RECLAMATION	CALIFORNIA
129	LEUCADIA COUNTY WATER DISTRICT	CALIFORNIA
130	LOCKEFORD COMMUNITY SERVICES DISTRICT	CALIFORNIA
131	LONG BEACH WATER DEPARTMENT	CALIFORNIA
132	LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS	CALIFORNIA
133	MAMMOTH COUNTY WATER DISTRICT	CALIFORNIA
134	MARIN MUNICIPAL WATER DISTRICT	CALIFORNIA
135	MARINA COAST WATER DISTRICT	CALIFORNIA
136	MCKINLEYVILLE CSD	CALIFORNIA
137	MEADOWOOD RESORT HOTEL STP	CALIFORNIA
138	MENDOCINO CSD	CALIFORNIA
139	METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	CALIFORNIA
140	MISSION HILLS CSD	CALIFORNIA
141	MOLICA FARMS RECYCLING PROJECT	CALIFORNIA
142	MONTEREY PENINSULA WATER MANAGEMENT DISTRICT	CALIFORNIA
143	MONTEREY REG WATER POLLUTION CONTROL AGENCY	CALIFORNIA
144	MOULTON NIGUEL WATER DISTRICT	CALIFORNIA
145	MT. VIEW SD	CALIFORNIA
146	MURPHYS SD WTP	CALIFORNIA
147	NAPA SANITATION DISTRICT	CALIFORNIA
148	NATIONAL PARKS SERVICE	CALIFORNIA
149	NEVADA CSD #1	CALIFORNIA

150	NORTH OF RIVER SD WTP	CALIFORNIA
151	NORTH SAN MATEO COUNTY SANITATION DISTRICT	CALIFORNIA
152	NOVATO SANITATION DISTRICT	CALIFORNIA
153	OLIVENHAIN MUNICIPAL WATER DISTRICT	CALIFORNIA
154	ORANGE COUNTY SANITATION DISTRICT	CALIFORNIA
155	ORANGE COUNTY WATER DISTRICT	CALIFORNIA
156	ORO LOMA/CASTRO VALLEY WTP	CALIFORNIA
157	OTAY WATER DISTRICT	CALIFORNIA
158	PACIFIC UNION COLLEGE STP	CALIFORNIA
159	PADRE DAM MUNICIPAL WATER DISTRICT	CALIFORNIA
160	PALO ALTO REGIONAL WRP	CALIFORNIA
161	PEBBLE BEACH COMMUNITY SERVICES DISTRICT	CALIFORNIA
162	PITIGLIANO, CHARLES RECLAMATION FACILITIES	CALIFORNIA
163	PIXLEY PUD WWTF	CALIFORNIA
164	PLACER COUNTY SERV AREA #6-SHERIDAN (PUBLIC WORKS)	CALIFORNIA
165	QUINCY COMM SERV DIST	CALIFORNIA
166	RALPH ALCALA	CALIFORNIA
167	RAMONA MUNICIPAL WATER DISTRICT	CALIFORNIA
168	RANCHO CALIFORNIA WATER DISTRICT	CALIFORNIA
169	RANCHO MURIETA COMMUNITY SERVICES DISTRICT	CALIFORNIA
170	RICHGROVE CSD WWTF	CALIFORNIA
171	RINCON DEL DIABLO MWD	CALIFORNIA
172	RIVERDALE PUD	CALIFORNIA
173	ROSAMOND COMMUNITY SERVICES DISTRICT	CALIFORNIA
174	ROWLAND WATER DISTRICT	CALIFORNIA
175	SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT	CALIFORNIA
176	SAN BERNADINO COUNTY SERVICE AREA 70	CALIFORNIA
177	SAN CLEMENTE WRP	CALIFORNIA
178	SAN DIEGO WILD ANIMAL PARK STP	CALIFORNIA
179	SAN DIEGUITO WATER DISTRICT	CALIFORNIA
180	SAN ELIJO WPCF	CALIFORNIA

181	SAN FRANCISCO PUBLIC UTILITIES COMMISSION	CALIFORNIA
182	SAN PASQUAL WRP	CALIFORNIA
183	SANITATION DISTRICTS OF LOS ANGELES COUNTY	CALIFORNIA
184	SANTA ANA WATERSHED PROJECT AUTHORITY	CALIFORNIA
185	SANTA CLARA VALLEY WATER DISTRICT	CALIFORNIA
186	SANTA CRUZ COUNTY DEPARTMENT OF PUBLIC WORKS	CALIFORNIA
187	SANTA MARGARITA WATER DISTRICT	CALIFORNIA
188	SANTA PAULS WRF, (OMI)	CALIFORNIA
189	SELMA-KINGSBURG-FOWLER COUNTY SANITATION DISTRICT	CALIFORNIA
190	SEWER AUTHORITY MID-COASTSIDE TREATMENT PLANT	CALIFORNIA
191	SEWERAGE AGENCY OF SOUTHERN MARIN	CALIFORNIA
192	SEWERAGE COMMISSION - OROVILLE REGION WTP	CALIFORNIA
193	SHASTA COLLEGE WTP	CALIFORNIA
194	SHASTA DAM AREA PUD STP	CALIFORNIA
195	SILLS PROPERTIES RECLAMATION SITE	CALIFORNIA
196	SOCWA JOINT REGIONAL TREATMENT PLANT	CALIFORNIA
197	SOLVANG WTP	CALIFORNIA
198	SONOMA COUNTY WATER AGENCY	CALIFORNIA
199	SOUTH BAYSIDE SYSTEM AUTHORITY	CALIFORNIA
200	SOUTH COAST WATER DISTRICT	CALIFORNIA
201	SOUTH ORANGE COUNTY WASTEWATER AUTHORITY	CALIFORNIA
202	SOUTH TAHOE PUBLIC UTILITY DISTRICT	CALIFORNIA
203	SPRINGS OF LIVING WATER STP	CALIFORNIA
204	STALLION SPRINGS COMM SERV DISTRICT WTP	CALIFORNIA
205	STANFORD UNIVERISTY UTILITIES DIVISION	CALIFORNIA
206	STRATHMORE PUD WTP	CALIFORNIA
207	SUN CITY REGIONAL WRF	CALIFORNIA
208	SUNNYSLOPE CWD	CALIFORNIA
209	SUNNYVALE PUBLIC WORKS FIELD SERVICES, CITY OF	CALIFORNIA
210	TAFT HEIGHTS/FORD CITY SD JOINT WTF (CITY OF TAFT)	CALIFORNIA
211	TAHOE-TRUCKEE SANITATION AGENCY	CALIFORNIA

212	TERMINAL ISLAND TP	CALIFORNIA
213	TERRA BELLA SEWER MAINTENANCE DISTRICT	CALIFORNIA
214	TOWN OF APPLE VALLEY	CALIFORNIA
215	TOWN OF WINDSOR	CALIFORNIA
216	TRABUCO CANYON WATER DISTRICT	CALIFORNIA
217	TRIUNFO SANITATION DISTRICT	CALIFORNIA
218	TUOLUMNE CITY SD WTP	CALIFORNIA
219	TUOLUMNE REGIONAL WATER DISTRICT	CALIFORNIA
220	TUOLUMNE UTILITIES DISTRICT	CALIFORNIA
221	UNION SANITARY DISTRICT	CALIFORNIA
222	UNITED WATER	CALIFORNIA
223	UPLAND HILLS WASTEWATER RECLAMATION PLANT	CALIFORNIA
224	UPPER SAN GABRIEL VALLEY MWD	CALIFORNIA
225	US PENITENTIARY	CALIFORNIA
226	VACAVILLE DEPARTMENT OF PUBLIC WORKS	CALIFORNIA
227	VALLECITOS WATER DISTRICT	CALIFORNIA
228	VALLEY CENTER MWD	CALIFORNIA
229	VALLEY SANITARY DISTRICT WTF	CALIFORNIA
230	VENTURA COUNTY WATERWORKS DISTRICT #1	CALIFORNIA
231	VENTURA UTILITIES - WASTEWATER	CALIFORNIA
232	VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY	CALIFORNIA
233	VICTOR VALLEY WATER DISTRICT	CALIFORNIA
234	WALNUT VALLEY WATER DISTRICT	CALIFORNIA
235	WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA	CALIFORNIA
236	WEST BASIN MUNICIPAL WATER DISTRICT	CALIFORNIA
237	WEST COUNTY WASTEWATER DISTRICT WTP	CALIFORNIA
238	WEST PARLIER WTP	CALIFORNIA
239	WESTERN HILLS GOLF & COUNTRY CLUB WTP	CALIFORNIA
240	WESTHILLS COMM COLLEGE DIST	CALIFORNIA
241	WESTPORT TP	CALIFORNIA
242	WHISPERING PALMS WPCF	CALIFORNIA

243	WILDWOOD MOBILE HOME PARK STP	CALIFORNIA
244	WILLITS WQCP	CALIFORNIA
245	WINDSOR WATER DISTRICT	CALIFORNIA
246	YOUNTVILLE/CA VETERANS HOME JOINT WTF	CALIFORNIA
247	YUCAIPA VALLEY WATER DISTRICT	CALIFORNIA
248	ZONE 7 WATER AGENCY	CALIFORNIA

1	ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY	COLORADO
2	CITY OF AURORA	COLORADO
3	CITY OF WESTMINSTER	COLORADO
4	COLORADO SPRINGS UTILITIES	COLORADO
5	DENVER WATER	COLORADO

1	6 CES/CEV	FLORIDA
2	ADVENT CHRISTIAN VILLAGE	FLORIDA
3	ALAFAYA UTILITIES, INC.	FLORIDA
4	ALOHA UTILITIES, INC.	FLORIDA
5	AQUA UTILITIES FLORIDA, INC.	FLORIDA
6	AQUASOURCE SERVICES, LP.	FLORIDA
7	AQUASOURCE, INC.	FLORIDA
8	AVALON UTILITIES	FLORIDA
9	BAKER CORRECTIONAL INSTITUTION	FLORIDA
10	BANYAN CONSTRUCTION & DEVELOPMENT, INC.	FLORIDA
11	BAREFOOT BAY WATER & SEWER	FLORIDA
12	BAY COUNTY COMMISSIONERS	FLORIDA
13	BAY LAUREL CENTER COMMUNITY DEVELOPMENT	FLORIDA
14	BLUE UTILITIES	FLORIDA
15	BONITA SPRINGS UTIL., INC.	FLORIDA
16	BREVARD CO. WATER RESOURCES	FLORIDA
17	BROWARD CO. NORTH REGIONAL	FLORIDA
18	CAMP INN ASSOCIATES, LLC	FLORIDA
19	CAPE CANAVERAL AIR FORCE BASE	FLORIDA

20	CAREFREE COUNTRY CLUB	FLORIDA
21	CEDAR KEY WATER & SEWER	FLORIDA
22	CENTURY REALTY FUNDS, INC.	FLORIDA
23	CHARLOTTE CO. UTILITIES	FLORIDA
24	CHARLOTTE CORRECTIONAL INSTITUTION	FLORIDA
25	CHATEAU PROPERTIES, INC.	FLORIDA
26	CITRUS COUNTY UTILITIES	FLORIDA
27	CITY OF ALACHUA	FLORIDA
28	CITY OF ALTAMONTE SPRINGS	FLORIDA
29	CITY OF APOPKA	FLORIDA
30	CITY OF ARCADIA	FLORIDA
31	CITY OF AUBURNDALE	FLORIDA
32	CITY OF AVON PARK	FLORIDA
33	CITY OF BARTOW	FLORIDA
34	CITY OF BELLE GLADE	FLORIDA
35	CITY OF BELLEVIEW	FLORIDA
36	CITY OF BOCA RATON	FLORIDA
37	CITY OF BOWLING GREEN	FLORIDA
38	CITY OF BRADENTON, PUBLIC WORKS	FLORIDA
39	CITY OF BRANFORD	FLORIDA
40	CITY OF BROOKSVILLE	FLORIDA
41	CITY OF BUSHNELL	FLORIDA
42	CITY OF CAPE CANAVERAL	FLORIDA
43	CITY OF CAPE CORAL-WRFS	FLORIDA
44	CITY OF CARRABELLE	FLORIDA
45	CITY OF CASSELBERRY	FLORIDA
46	CITY OF CHIEFLAND	FLORIDA
47	CITY OF CLEARWATER	FLORIDA
48	CITY OF CLERMONT	FLORIDA
49	CITY OF CLEWISTON	FLORIDA
50	CITY OF COCOA	FLORIDA

51	CITY OF COCOA BEACH WRF DEPT.	FLORIDA
52	CITY OF COTTONDALE	FLORIDA
53	CITY OF CRYSTAL RIVER	FLORIDA
54	CITY OF DADE CITY	FLORIDA
55	CITY OF DAYTONA BEACH	FLORIDA
56	CITY OF DEFUNIAK SPRINGS	FLORIDA
57	CITY OF DELAND	FLORIDA
58	CITY OF DELTONA	FLORIDA
59	CITY OF DUNEDIN WD	FLORIDA
60	CITY OF DUNNELLON	FLORIDA
61	CITY OF EDGEWATER	FLORIDA
62	CITY OF EUSTIS	FLORIDA
63	CITY OF EVERGLADES CITY	FLORIDA
64	CITY OF FORT MEADE	FLORIDA
65	CITY OF FORT MYERS CENTRAL	FLORIDA
66	CITY OF FORT WALTON BEACH	FLORIDA
67	CITY OF FREEPORT	FLORIDA
68	CITY OF GULF BREEZE	FLORIDA
69	CITY OF HAINES CITY	FLORIDA
70	CITY OF HAWTHORNE	FLORIDA
71	CITY OF HOLLY HILL	FLORIDA
72	CITY OF HOLLYWOOD	FLORIDA
73	CITY OF HOMESTEAD	FLORIDA
74	CITY OF INVERNESS	FLORIDA
75	CITY OF JACKSONVILLE BEACH	FLORIDA
76	CITY OF KISSIMMEE - WATER RESOURCES	FLORIDA
77	CITY OF LABELLE	FLORIDA
78	CITY OF LAKE ALFRED	FLORIDA
79	CITY OF LAKE BUTLER	FLORIDA
80	CITY OF LAKE CITY	FLORIDA
81	CITY OF LAKE WALES	FLORIDA

82	CITY OF LAKELAND	FLORIDA
83	CITY OF LARGO-ENV. SERVICES	FLORIDA
84	CITY OF LEESBURG	FLORIDA
85	CITY OF LIVE OAK	FLORIDA
86	CITY OF MADISON	FLORIDA
87	CITY OF MARCO ISLAND	FLORIDA
88	CITY OF MARY ESTHER	FLORIDA
89	CITY OF MELBOURNE	FLORIDA
90	CITY OF MIRAMAR	FLORIDA
91	CITY OF MONTICELLO	FLORIDA
92	CITY OF MOUNT DORA	FLORIDA
93	CITY OF NAPLES	FLORIDA
94	CITY OF NEWBERRY	FLORIDA
95	CITY OF NORTH PORT	FLORIDA
96	CITY OF OCALA	FLORIDA
97	CITY OF OCOEE	FLORIDA
98	CITY OF OLDSMAR	FLORIDA
99	CITY OF ORLANDO	FLORIDA
100	CITY OF ORMOND BEACH	FLORIDA
101	CITY OF PAHOKEE	FLORIDA
102	CITY OF PALATKA	FLORIDA
103	CITY OF PALM BAY UTIL.	FLORIDA
104	CITY OF PALM COAST	FLORIDA
105	CITY OF PALMETTO	FLORIDA
106	CITY OF PANAMA CITY BEACH	FLORIDA
107	CITY OF PLANT CITY	FLORIDA
108	CITY OF PLANTATION	FLORIDA
109	CITY OF POMPANO BEACH	FLORIDA
110	CITY OF PORT ORANGE	FLORIDA
111	CITY OF PORT ST. LUCIE, UTILITIES	FLORIDA
112	CITY OF QUINCY	FLORIDA

113	CITY OF ROCKLEDGE WWTF	FLORIDA
114	CITY OF SANFORD, FL	FLORIDA
115	CITY OF SANIBEL	FLORIDA
116	CITY OF SARASOTA	FLORIDA
117	CITY OF SEBRING	FLORIDA
118	CITY OF SOUTH BAY	FLORIDA
119	CITY OF ST. AUGUSTINE	FLORIDA
120	CITY OF ST. CLOUD	FLORIDA
121	CITY OF ST. PETERSBURG	FLORIDA
122	CITY OF STARKE	FLORIDA
123	CITY OF SUNRISE	FLORIDA
124	CITY OF TALLAHASSEE	FLORIDA
125	CITY OF TAMPA, DEPT. OF SANITARYSEWERS	FLORIDA
126	CITY OF TARPON SPRINGS	FLORIDA
127	CITY OF TAVARES	FLORIDA
128	CITY OF TITUSVILLE	FLORIDA
129	CITY OF TRENTON	FLORIDA
130	CITY OF UMATILLA	FLORIDA
131	CITY OF VENICE	FLORIDA
132	CITY OF VERO BEACH	FLORIDA
133	CITY OF WILDWOOD WWTF	FLORIDA
134	CITY OF WILLISTON	FLORIDA
135	CITY OF WINTER GARDEN	FLORIDA
136	CITY OF WINTER HAVEN	FLORIDA
137	CITY OF WINTER HAVEN-GARDEN GROVE	FLORIDA
138	CITY OF WINTER PARK	FLORIDA
139	CITY OF WINTER SPRINGS	FLORIDA
140	CITY OF ZEPHYRHILLS	FLORIDA
141	CLAY COUNTY UTIL. AUTHORITY	FLORIDA
142	CLERBROOK RESORTS, INC.	FLORIDA
143	COLLIER COUNTY PUBLIC UTILITIES	FLORIDA

144	CONTINENTAL UTILITY, INC.	FLORIDA
145	CYPRESS LAKES UTILITIES, INC.	FLORIDA
146	DESTIN WATER USERS, INC.	FLORIDA
147	DJJ MAINTENANCE	FLORIDA
148	DUNES COMMUNITY DEV. DISTRICT	FLORIDA
149	EASTPOINT WATER & SEWER	FLORIDA
150	EGLIN AIR FORCE BASE	FLORIDA
151	ENGLEWOOD WATER DISTRICT	FLORIDA
152	ENVIROSYSTEMS INTERNATIONAL, INC.	FLORIDA
153	ESCAMBIA CO. UTILITY AUTHORITY	FLORIDA
154	FIDDLESTICKS COUNTRY CLUB	FLORIDA
155	FINLEY ENGINEERING GROUP	FLORIDA
156	FLORIDA DEPARTMENT OF CORRECTIONS	FLORIDA
157	FLORIDA GOVERNMENTAL UTILITY AUTHORITY	FLORIDA
158	FLORIDA STATE PRISON WWTF	FLORIDA
159	FLORIDA WATER SERVICES CORPORATION	FLORIDA
160	FOREST UTILITIES, INC.	FLORIDA
161	FORT PIERCE UTILITY AUTHORITY	FLORIDA
162	FOUNTAIN LAKES SEWER CORPORATION	FLORIDA
163	GAINESVILLE REGIONAL UTILITIES	FLORIDA
164	GASPARILLA ISLAND WATER ASSOC.	FLORIDA
165	GATEWAY SERVICES DISTRICT	FLORIDA
166	GENERAL UTILITIES CORP.	FLORIDA
167	GOOD SAMARITAN RETIREMENT VILLAGE	FLORIDA
168	GRENELEFE GOLF AND TENNIS RESORT	FLORIDA
169	GROVELAND WWTF	FLORIDA
170	GRU	FLORIDA
171	GULF ENV. SERVICES, INC.	FLORIDA
172	HARBOUR RIDGE POA	FLORIDA
173	HERNANDO COUNTY UTILITIES	FLORIDA
174	HIGHLANDS COUNTY	FLORIDA

175	HILLSBOROUGH CO. WATER DEPT.	FLORIDA
176	HOLLEY NAVARRE WATER SYSTEM	FLORIDA
177	HUNTER'S RIDGE UTIL. CO.	FLORIDA
178	HURLBURT FIELD AIR FORCE BASE	FLORIDA
179	IMMOKALEE WATER & SEWER DISTRICT	FLORIDA
180	INDIAN RIVER COUNTY	FLORIDA
181	INDIANTOWN COMPANY, INC.	FLORIDA
182	IRP MARRIOT RESORT UTILITY	FLORIDA
183	JANUS HOTEL AND RESORTS, INC.	FLORIDA
184	JAX UTILITIES MANAGEMENT, INC.	FLORIDA
185	JEA	FLORIDA
186	JEFFERSON CORRECTIONAL INSTITUTION	FLORIDA
187	KEY WWTPS OPS. SERVICES	FLORIDA
188	LABRADOR UTILITIES, INC.	FLORIDA
189	LAKE GROVE UTILITIES	FLORIDA
190	LAKE WALES UTIL. CO., LTD.	FLORIDA
191	LANARK VILLAGE WATER & SEWER	FLORIDA
192	LEE CO. UTILITIES	FLORIDA
193	LOXAHATCHEE RIVER DISTRICT	FLORIDA
194	MANATEE CO. UTILITIES	FLORIDA
195	MARION COUNTY UTILITIES	FLORIDA
196	MARTIN CO. ENV. SERVICES	FLORIDA
197	MARTIN CORRECTIONAL INSTITUTION	FLORIDA
198	MATANZAS SHORES OWNER'S ASSOCIATION, INC.	FLORIDA
199	MIAMI-DADE WATER & SEWER	FLORIDA
200	MID-FLORIDA LAKES MANUFACTURED HOME COMMUNITIES	FLORIDA
201	MILES GRANT WATER & SEWER	FLORIDA
202	NASSAU BOARD OF COUNTY COMMISSIONERS	FLORIDA
203	NAVY PUBLIC WORKS CENTER	FLORIDA
204	NEW SMYRNA UTILITIES COMMISSION	FLORIDA
205	NORMANDY VILLAGE UTILITY COMPANY	FLORIDA

206	NORTH BEACH UTILITIES, INC.	FLORIDA
207	NORTH FORT MYERS UTIL., INC.	FLORIDA
208	NORTH PENINSULA UTILITY CORPORATION	FLORIDA
209	NORTH SUMTER UTILITIES	FLORIDA
210	NVOC REGIONAL SEWER BOARD, INC.	FLORIDA
211	OKALOOSA COUNTY WATER & SEWER	FLORIDA
212	OKEECHOBEE UTIL. AUTHORITY	FLORIDA
213	OKEELANTA CORPORATION	FLORIDA
214	OMI	FLORIDA
215	ORANGE COUNTY UTILITIES	FLORIDA
216	PACE WATER SYSTEM	FLORIDA
217	PALM BEACH COUNTY WATER UTILITIES DEPARTMENT	FLORIDA
218	PASCO CO. UTILITIES	FLORIDA
219	PEBBLE CREEK UTILITIES, INC.	FLORIDA
220	PHOENIX ENVIRONMENTAL TECHNOLOGIES	FLORIDA
221	PINELLAS CO. UTIL. - OPERATIONS DEPT.	FLORIDA
222	POLK COUNTY UTILITIES	FLORIDA
223	PORT OF THE ISLANDS COMMUNITY IMPROVMENT DISTRICT	FLORIDA
224	RAINBOW SPRINGS UTILITIES, INC.	FLORIDA
225	REALNOR HALLANDALE, INC	FLORIDA
226	REEDY CREEK ENERGY SERVICES INC	FLORIDA
227	REESE, MACON & ASSOCIATES	FLORIDA
228	REGIONAL UTILITIES	FLORIDA
229	RESOURCE CONSERVATION SYSTEMS	FLORIDA
230	ROLLING OAKS UTIL., INC.	FLORIDA
231	RSPI MHC LLC	FLORIDA
232	S. CENTRAL REGIONAL WWT& DISPOSAL BOARD	FLORIDA
233	SAILFISH POINT UTIL. CORP.	FLORIDA
234	SANDY CREEK UTILITY SERVICES, INC.	FLORIDA
235	SANLANDO UTILITIES CORP.	FLORIDA
236	SANTA ROSA COUNTY	FLORIDA

237	SARASOTA CO. UTIL. DEPT.	FLORIDA
238	SAVANNA CLUB PROPERTY OWNER ASSC., INC.	FLORIDA
239	SEACOAST UTIL. AUTHORITY	FLORIDA
240	SEMINOLE COUNTY	FLORIDA
241	SEMINOLE COUNTY ENVIRONMENTAL SERVICES	FLORIDA
242	SEVERN TRENT-AVATAR	FLORIDA
243	SFWMD	FLORIDA
244	SIDNEY COLEN & ASSOCIATES, LTD.	FLORIDA
245	SILVER SPRINGS REGIONAL	FLORIDA
246	SOUTH MARTIN REGIONAL UTILITY	FLORIDA
247	SOUTH WALTON UTIL. CO., INC.	FLORIDA
248	SOUTHLAKE UTILITIES, INC.	FLORIDA
249	SOUTHSIDE OF FLORIDA, LLA	FLORIDA
250	ST. JOHNS COUNTY	FLORIDA
251	ST. LUCIE COUNTY UTILITIES	FLORIDA
252	SUN COMMUNITIES, INC.	FLORIDA
253	SUN LAKE ESTATES HOMEOWNERS ASSOCIATION	FLORIDA
254	SW FLORIDA WATER MGMT DISTRICT	FLORIDA
255	SYNAGRO SOUTHEAST	FLORIDA
256	TALQUIN ELECTRIC COOPERATIVE	FLORIDA
257	THE GREAT OUTDOORS RV/GOLF RESORT	FLORIDA
258	THE SI UTILITY GROUP, INC.	FLORIDA
259	THOUSAND TRAILS RESORTS	FLORIDA
260	TOHO WATER AUTHORITY	FLORIDA
261	TOWN OF BELLEAIR	FLORIDA
262	TOWN OF GREENVILLE	FLORIDA
263	TOWN OF GRETNA	FLORIDA
264	TOWN OF HAVANA	FLORIDA
265	TOWN OF JAY	FLORIDA
266	TOWN OF JENNINGS	FLORIDA
267	TOWN OF MAYO	FLORIDA

268	TOWN OF SNEADS	FLORIDA
269	TOWN OF ZOLFO SPRINGS	FLORIDA
270	TROST INTERNATIONAL LTD INC	FLORIDA
271	TYMBER CREEK UTILITIES, INC	FLORIDA
272	UNITED WATER FLORIDA	FLORIDA
273	UNIVERSITY OF FLORIDA	FLORIDA
274	US SUGAR CORPORATION	FLORIDA
275	USFILTER OPERATING SERVICES	FLORIDA
276	UTIL. COMMISSION, CITY OF NEW SMYRNA BEACH	FLORIDA
277	UTILITIES, INC. OF EAGLE RIDGE	FLORIDA
278	UTILITIES, INC. OF HUTCHINSON ISLAND	FLORIDA
279	UTILITIES, INC. OF LONGWOOD	FLORIDA
280	UTILITIES, INC. OF PENNBROOKE	FLORIDA
281	UTILITIES, INC. OF SANDALHAVEN	FLORIDA
282	VILLAGE OF ROYAL PALM BEACH	FLORIDA
283	VILLAGE OF WELLINGTON	FLORIDA
284	VOLUSIA COUNTY UTILITIES	FLORIDA
285	WAKULLA COUNTY	FLORIDA
286	WALSH ENV. SERVICES, INC.	FLORIDA
287	WATER CONSERV II	FLORIDA
288	WEDGEFIELD UTILITIES, INC.	FLORIDA
289	WILDER DEVELOPMENT CORPORATION	FLORIDA
290	WILSONMILLER, INC.	FLORIDA
291	WINCO UTILITIES, INC.	FLORIDA
292	WINDEMERE UTILITY COMPANY	FLORIDA
293	WYNNE BLDG. CORP.	FLORIDA
294	ZELLWOOD STATION COOP, INC.	FLORIDA

1	GWINNETT COUNTY PUBLIC UTILITIES	GEORGIA
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1	CITY OF MOSCOW, IDAHO	IDAHO
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1	BREESE STP	ILLINOIS
2	CAMP POINT STP	ILLINOIS
3	POWER PACKAGING INC	ILLINOIS
4	TUSCOLA STP	ILLINOIS

1	FOX ENERGY CO LLC	NEBRASKA
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1	ATLANTIC COUNTY UTILITIES	NEW JERSEY
2	BERGEN COUNTY UTILITIES	NEW JERSEY
3	BOROUGH OF BERNARDSVILLE	NEW JERSEY
4	BOROUGH OF HIGHTSTOWN	NEW JERSEY
5	CMCMUA / LOWER REGIONAL	NEW JERSEY
6	CUMBERLAND COUNTY	NEW JERSEY
7	EVESHAM TWP. MUA - ELMWOOD	NEW JERSEY
8	JOINT MEETING OF ESSEX & UNION COUNTIES	NEW JERSEY
9	LANDIS SEWERAGE AUTHORITY	NEW JERSEY
10	LINDEN ROSELLE SEWERAGE AUTHORITY	NEW JERSEY
11	MEDFORD TWP MUA	NEW JERSEY
12	MT. LAUREL TWP. MUA - HARTSFORD	NEW JERSEY
13	SECAUCUS MUA - KOELLE BLVD.	NEW JERSEY
14	WESTERN MONMOUTH MUA	NEW JERSEY

1	ANTHONY WATER AND SANITATION DISTRICT	NEW MEXICO
2	BERNALILLO COUNTY DETENTION CENTER WESTSIDE FACILITY	NEW MEXICO
3	CITY OF ALAMOGORDO WWTP	NEW MEXICO
4	CITY OF ALBUQUERQUE S SIDE WRP	NEW MEXICO
5	CITY OF ARTESIA WWTP	NEW MEXICO
6	CITY OF AZTEC WWTP	NEW MEXICO
7	CITY OF CLOVIS WWTP	NEW MEXICO
8	CITY OF DEMING	NEW MEXICO

9	CITY OF GALLUP WWTP & SLUDGE	NEW MEXICO
10	CITY OF GRANTS WWTP	NEW MEXICO
11	CITY OF HOBBS WWTP	NEW MEXICO
12	CITY OF LAS CRUCES - WEST MESA INDUSTRIAL PARK WWTP	NEW MEXICO
13	CITY OF LAS VEGAS - EFFLUENT REUSE PROJECT	NEW MEXICO
14	CITY OF LOVINGTON WWTP	NEW MEXICO
15	CITY OF MORIARTY WWTP	NEW MEXICO
16	CITY OF RIO RANCHO	NEW MEXICO
17	CITY OF SILVER CITY WWTP	NEW MEXICO
18	LOS ALAMOS COUNTY	NEW MEXICO
19	NATIONAL SOLAR OBSERVATORY	NEW MEXICO
20	PICACHO HILLS UTILITY COMPANY	NEW MEXICO
21	TOWN OF JAL WWTP	NEW MEXICO
22	TOWN OF TAOS WWTP	NEW MEXICO
23	TRUTH OR CONSEQUENCES (CITY OF) - WASTEWATER TREATMENT PLANT	NEW MEXICO
24	TULAROSA WASTEWATER TREATMENT PLANT	NEW MEXICO
25	VILLAGE OF ANGEL FIRE WWTP	NEW MEXICO
26	VILLAGE OF CLAYTON WWTP	NEW MEXICO
27	VILLAGE OF LOVING WWTP	NEW MEXICO
28	VILLAGE OF MAGDALENA WWTP	NEW MEXICO

1	CITY OF HENDERSON	NEVADA
2	CITY OF LAS VEGAS	NEVADA
3	CLARK COUNTY WATER RECLAMATION DISTRICT	NEVADA
4	LAS VEGAS VALLEY WATER DISTRICT	NEVADA
5	SOUTHERN NEVADA WATER AUTHORITY	NEVADA

1	3M COMPANY INC	NORTH CAROLINA
2	904 GEORGETOWN TREATMENT PLANT LLC	NORTH CAROLINA
3	ANSON COUNTY	NORTH CAROLINA
4	BEACON'S REACH MASTER ASSOC INC	NORTH CAROLINA

5	BLE LLC	NORTH CAROLINA
6	BLUEGREEN CAROLINA LANDS LLC	NORTH CAROLINA
7	BRUNSWICK COUNTY	NORTH CAROLINA
8	CAROLINA WATER SERVICE, INCORPORATED OF NORTH CAROLINA	NORTH CAROLINA
9	CHARLOTTE MECKLENBURG UTILITY DEPARTMENT	NORTH CAROLINA
10	CITY OF GOLDSBORO	NORTH CAROLINA
11	CITY OF HENDERSONVILLE	NORTH CAROLINA
12	CITY OF LEXINGTON	NORTH CAROLINA
13	CITY OF NEW BERN	NORTH CAROLINA
14	CITY OF RALEIGH	NORTH CAROLINA
15	CITY OF SANFORD, NC	NORTH CAROLINA
16	CITY OF WASHINGTON	NORTH CAROLINA
17	CITY OF WILSON	NORTH CAROLINA
18	COASTAL CAROLINA COUNTRY CLUB	NORTH CAROLINA
19	COLVARD FARMS DEVELOPMENT COMPANY L L C	NORTH CAROLINA
20	DELPHIN PROPERTIES LLC	NORTH CAROLINA
21	ENVIRO-TECH OF NORTH CAROLINA INC	NORTH CAROLINA
22	FARMVILLE GOLF & COUNTRY CLUB INC	NORTH CAROLINA
23	GINGUITE WOODS WTR RECLAMATION ASSOC INC	NORTH CAROLINA
24	GOVERNORS CLUB LIMITED PARTNERSHIP	NORTH CAROLINA
25	GREEN HILL COUNTRY CLUB	NORTH CAROLINA
26	HEATER UTILITIES INC	NORTH CAROLINA
27	HEILIG WILLIAM	NORTH CAROLINA
28	HENDERSON FARMS LLC	NORTH CAROLINA
29	JOHNSTON CO COUNTRY CLUB	NORTH CAROLINA
30	JOHNSTON COUNTY	NORTH CAROLINA
31	K & M DEVELOPMENT	NORTH CAROLINA

32	LAKE OSSEROGA ASSOCIATION INC	NORTH CAROLINA
33	MACON COUNTY	NORTH CAROLINA
34	NCDENR	NORTH CAROLINA
35	NEON IMPRESSIONS INC	NORTH CAROLINA
36	OCEAN RIDGE PROPERTIES, INC.	NORTH CAROLINA
37	POINT ON NORMAN	NORTH CAROLINA
38	R L BLANTON & CO INC	NORTH CAROLINA
39	ROCKBRIDGE SUBDIVISION	NORTH CAROLINA
40	SANDLER UTILITIES AT MILL RUN LLC	NORTH CAROLINA
41	SLASH CREEK LLC	NORTH CAROLINA
42	SMITHFIELD PACKING COMPANY INC	NORTH CAROLINA
43	SOUTH BRUNSWICK WATER & SEWER AUTHORITY	NORTH CAROLINA
44	SOUTHEAST BRUNSWICK SANITARY DISTRICT	NORTH CAROLINA
45	THE TILLERY TRADITION INC	NORTH CAROLINA
46	TOWN OF APEX	NORTH CAROLINA
47	TOWN OF BENSON	NORTH CAROLINA
48	TOWN OF BURGAW	NORTH CAROLINA
49	TOWN OF CAROLINA BEACH	NORTH CAROLINA
50	TOWN OF CARY	NORTH CAROLINA
51	TOWN OF CLAYTON	NORTH CAROLINA
52	TOWN OF ERWIN	NORTH CAROLINA
53	TOWN OF FARMVILLE	NORTH CAROLINA
54	TOWN OF JEFFERSON	NORTH CAROLINA
55	TOWN OF LOUISBURG	NORTH CAROLINA
56	TOWN OF MACCLESFIELD	NORTH CAROLINA
57	TOWN OF MOREHEAD CITY	NORTH CAROLINA
58	TOWN OF OCEAN ISLE BEACH	NORTH CAROLINA

59	TOWN OF PIKEVILLE	NORTH CAROLINA
60	TOWN OF SCOTLAND NECK	NORTH CAROLINA
61	TOWN OF SWANSBORO	NORTH CAROLINA
62	TOWN OF WARSAW	NORTH CAROLINA
63	TOWN OF WEST JEFFERSON	NORTH CAROLINA
64	TOWN OF ZEBULON	NORTH CAROLINA
65	US MARINE CORPS - CAMP LEJEUNE	NORTH CAROLINA

1	TRAVEL CENTERS OF AMERICA	OHIO
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1	MAGELLAN PIPELINE COMP LLC, WAUSAU FACILITY	OKLAHOMA
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1	BEECHWOOD SD	SOUTH CAROLINA
2	BIO TECH,INC/CAYCE LAND SLUDGE	SOUTH CAROLINA
3	BJW&SA	SOUTH CAROLINA
4	BLACKWATER DEVELOPMENT WWTP	SOUTH CAROLINA
5	BRIAR'S CREEK GOLF WWTF	SOUTH CAROLINA
6	BROAD CREEK PSD	SOUTH CAROLINA
7	CHARLESTON CPW/DANIEL ISLAND	SOUTH CAROLINA
8	CHARLOTTE MECKLENBURG UTIL DPT	SOUTH CAROLINA
9	CHEROKEE PLANTATION WWTF	SOUTH CAROLINA
10	CHICKASAW UTIL/CHICKASAW POINT	SOUTH CAROLINA
11	CITY OF FLORENCE/DIST #6 WWTP	SOUTH CAROLINA
12	DCW&SA/SWIFT CRK PLT	SOUTH CAROLINA
13	DEWEES ISL DEV/DEWEES UTIL COR	SOUTH CAROLINA
14	EASLEY/DON L MOORE WTP	SOUTH CAROLINA
15	EASTWOOD SD	SOUTH CAROLINA
16	EDGEFIELD COUNTY W&S AUTH/WTP	SOUTH CAROLINA
17	EHRHARDT WWTF	SOUTH CAROLINA
18	ELLOREE WATER SYSTEM	SOUTH CAROLINA
19	FAIR PLAY DEVELOPMENT WWTP	SOUTH CAROLINA

20	FRIPP ISLAND PSD	SOUTH CAROLINA
21	GOAT ISLAND WATER & SEWER COMP	SOUTH CAROLINA
22	GSW&SA/BULL CREEK WTP	SOUTH CAROLINA
23	HAIG POINT/MELROSE WWTP	SOUTH CAROLINA
24	HAMMOCKS SUBDIVISION WWTP	SOUTH CAROLINA
25	HARBORVIEW SD	SOUTH CAROLINA
26	HILTON HEAD #1 PSD	SOUTH CAROLINA
27	INVERARY DEVELOPMENT WWTF	SOUTH CAROLINA
28	KIAWAH ISLAND UTILITY	SOUTH CAROLINA
29	LAKE WYLIE WTP	SOUTH CAROLINA
30	LANCASTER/CATAWBA RIVER WTP	SOUTH CAROLINA
31	LUGOFF ELGIN WATER AUTHORITY	SOUTH CAROLINA
32	MALLARD BAY SD/AAA UTILITIES	SOUTH CAROLINA
33	MARION CO/CENTENARY SWR SYSTEM	SOUTH CAROLINA
34	MONTE VISTA S/D	SOUTH CAROLINA
35	MOUZON'S BLUFF WWT SYSTEM	SOUTH CAROLINA
36	MULLINS WWTP	SOUTH CAROLINA
37	NCW&SA/PLANT #2	SOUTH CAROLINA
38	NEWBERRY CO W&SA/PLANT #3	SOUTH CAROLINA
39	NORTH GREENVILLE COLLEGE WWTP	SOUTH CAROLINA
40	PALMETTO UTIL'S/REG. WWTP	SOUTH CAROLINA
41	QUAIL HAVEN S/D	SOUTH CAROLINA
42	SANDY VALLEY WWTP	SOUTH CAROLINA
43	SANTEE PUBLIC SERVICE DISTRICT	SOUTH CAROLINA
44	SANTEE RESORT HOTEL WWTP	SOUTH CAROLINA
45	SC UTILITIES INC/GEM LAKES SD	SOUTH CAROLINA
46	SCDPRT/HUNTING ISL. DRAINFIELD	SOUTH CAROLINA
47	SHORELINE FARMS SD	SOUTH CAROLINA
48	SOUTH ISLAND PSD	SOUTH CAROLINA
49	SPARTANBURG WTR SYS/SIMMS WTP	SOUTH CAROLINA
50	SPRING ISL CO./SPRING ISL WWTP	SOUTH CAROLINA

51	T J BARNWELL UTILITY INC	SOUTH CAROLINA
52	TERRAPIN POINTE SD	SOUTH CAROLINA
53	TOWN OF BAMBERG	SOUTH CAROLINA
54	TOWN OF CENTRAL - PINE KNOLL SD	SOUTH CAROLINA
55	TOWN OF ESTILL	SOUTH CAROLINA
56	TOWN OF GREELEYVILLE	SOUTH CAROLINA
57	TOWN OF HOLLY HILL	SOUTH CAROLINA
58	TOWN OF LAKE VIEW	SOUTH CAROLINA
59	TOWN OF NEW ELLENTON	SOUTH CAROLINA
60	TOWN OF OLANTA WWTP	SOUTH CAROLINA
61	TOWN OF RIDGELAND WWTP	SOUTH CAROLINA
62	TOWN OF SEABROOK ISLAND	SOUTH CAROLINA
63	TOWN OF SELLERS	SOUTH CAROLINA
64	TOWN OF SUMMERTON	SOUTH CAROLINA
65	TOWN OF SUMTER/MAYESVILLE	SOUTH CAROLINA
66	WATER OAK UTIL/MOSS CRK PLANTA	SOUTH CAROLINA
67	WESTMINSTER/WATER TTMT PLANT	SOUTH CAROLINA
68	WILLISTON/ROSEMARY CRK WWTP	SOUTH CAROLINA
69	WINDY HILL SD	SOUTH CAROLINA

1	AIRLINE MOBILE HOME PARK	TEXAS
2	ALCOA INC	TEXAS
3	AMBASSADOR UNIVERSITY	TEXAS
4	AMBERWOOD WATER SYSTEM	TEXAS
5	ANDERSON CO FWSE #1	TEXAS
6	ARANSAS CO. MUD 1	TEXAS
7	BALCONES COUNTRY CLUB	TEXAS
8	BARTON CREEK LAKESIDE	TEXAS
9	BAYVIEW MUNICIPAL UTILITY DIST.	TEXAS
10	BIG LAKE SENIORS- APARTMENTS LTD	TEXAS
11	BLESSING MHP	TEXAS

12	BLUE RIDGE WEST. MUD	TEXAS
13	C N P UTILITY DIST.	TEXAS
14	CAL FARLEY'S BOYS RANCH	TEXAS
15	CANYON REGIONAL WATER AUTHORITY	TEXAS
16	CELANESE LTD	TEXAS
17	CHATEAU WOODS MUD	TEXAS
18	CIBOLO CREEK MUNICIPAL AUTHORITY	TEXAS
19	CINCO MUD NO 1	TEXAS
20	CITY OF ABERNATHY	TEXAS
21	CITY OF ABILENE	TEXAS
22	CITY OF ALBANY	TEXAS
23	CITY OF ALICE	TEXAS
24	CITY OF ALPINE	TEXAS
25	CITY OF AMARILLO	TEXAS
26	CITY OF ANDREWS	TEXAS
27	CITY OF ARANSAS PASS	TEXAS
28	CITY OF ASPERMONT	TEXAS
29	CITY OF AUSTIN	TEXAS
30	CITY OF AZLE	TEXAS
31	CITY OF BALMORHEA	TEXAS
32	CITY OF BANDERA	TEXAS
33	CITY OF BARRY	TEXAS
34	CITY OF BEAUMONT	TEXAS
35	CITY OF BEEVILLE	TEXAS
36	CITY OF BELLAIRE	TEXAS
37	CITY OF BELLMEAD	TEXAS
38	CITY OF BERTRAM WATER DEPT.	TEXAS
39	CITY OF BIG LAKE	TEXAS
40	CITY OF BLUE RIDGE	TEXAS
41	CITY OF BONHAM	TEXAS
42	CITY OF BRACKETTVILLE	TEXAS

43	CITY OF BRAZORIA	TEXAS
44	CITY OF BRECKENRIDGE	TEXAS
45	CITY OF BROWNFIELD	TEXAS
46	CITY OF BRYAN	TEXAS
47	CITY OF BRYSON	TEXAS
48	CITY OF BURKBURNETT	TEXAS
49	CITY OF BURNET	TEXAS
50	CITY OF CAMP WOOD	TEXAS
51	CITY OF CANTON	TEXAS
52	CITY OF CANYON	TEXAS
53	CITY OF CASTROVILLE	TEXAS
54	CITY OF CEDAR PARK	TEXAS
55	CITY OF CHILDRESS	TEXAS
56	CITY OF CLEBURNE	TEXAS
57	CITY OF CLYDE	TEXAS
58	CITY OF COAHOMA	TEXAS
59	CITY OF COLLEGE STATION	TEXAS
60	CITY OF COLORADO CITY	TEXAS
61	CITY OF CONVERSE	TEXAS
62	CITY OF COPPERAS COVE	TEXAS
63	CITY OF CORPUS CHRISTI	TEXAS
64	CITY OF CRANDALL	TEXAS
65	CITY OF CRANE	TEXAS
66	CITY OF CROSBYTON	TEXAS
67	CITY OF CROSS PLAINS	TEXAS
68	CITY OF DEER PARK	TEXAS
69	CITY OF DENTON	TEXAS
70	CITY OF DENVER CITY	TEXAS
71	CITY OF DIBOLL	TEXAS
72	CITY OF DICKENS	TEXAS
73	CITY OF DIMMITT	TEXAS

74	CITY OF DUMAS	TEXAS
75	CITY OF EAGLE PASS	TEXAS
76	CITY OF EASTLAND	TEXAS
77	CITY OF ENNIS	TEXAS
78	CITY OF FAIR OAKS RANCH	TEXAS
79	CITY OF FARWELL	TEXAS
80	CITY OF FORT STOCKTON	TEXAS
81	CITY OF FORT WORTH	TEXAS
82	CITY OF FREDERICKSBURG	TEXAS
83	CITY OF FREEPORT	TEXAS
84	CITY OF FRIONA	TEXAS
85	CITY OF FRISCO	TEXAS
86	CITY OF GALENA PARK	TEXAS
87	CITY OF GALVESTON	TEXAS
88	CITY OF GARLAND	TEXAS
89	CITY OF GEORGE WEST.	TEXAS
90	CITY OF GEORGETOWN	TEXAS
91	CITY OF GILMER	TEXAS
92	CITY OF GLEN ROSE	TEXAS
93	CITY OF GOLDTHWAITE	TEXAS
94	CITY OF GRAND PRAIRIE	TEXAS
95	CITY OF GREENVILLE	TEXAS
96	CITY OF HALE CENTER	TEXAS
97	CITY OF HALLSVILLE	TEXAS
98	CITY OF HARLINGEN WATERWORKS SYS	TEXAS
99	CITY OF HITCHCOCK	TEXAS
100	CITY OF HONDO	TEXAS
101	CITY OF HOUSTON	TEXAS
102	CITY OF IDALOU	TEXAS
103	CITY OF IOWA PARK	TEXAS
104	CITY OF JACKSBORO	TEXAS

105	CITY OF JEWETT	TEXAS
106	CITY OF KAUFMAN	TEXAS
107	CITY OF KERRVILLE	TEXAS
108	CITY OF KYLE	TEXAS
109	CITY OF LA COSTE	TEXAS
110	CITY OF LA MARQUE	TEXAS
111	CITY OF LA PORTE	TEXAS
112	CITY OF LAGO VISTA UTIL. DEPT.	TEXAS
113	CITY OF LAKE JACKSON	TEXAS
114	CITY OF LAMESA	TEXAS
115	CITY OF LAMPASAS	TEXAS
116	CITY OF LAREDO	TEXAS
117	CITY OF LEAGUE CITY	TEXAS
118	CITY OF LEVELLAND	TEXAS
119	CITY OF LEWISVILLE	TEXAS
120	CITY OF LEXINGTON	TEXAS
121	CITY OF LITTLEFIELD	TEXAS
122	CITY OF LLANO	TEXAS
123	CITY OF LOCKNEY	TEXAS
124	CITY OF LONGVIEW	TEXAS
125	CITY OF LUBBOCK	TEXAS
126	CITY OF MARBLE FALLS	TEXAS
127	CITY OF MARION	TEXAS
128	CITY OF MATHIS	TEXAS
129	CITY OF MCALLEN	TEXAS
130	CITY OF MCCAMEY	TEXAS
131	CITY OF MEMPHIS	TEXAS
132	CITY OF MENARD	TEXAS
133	CITY OF MERIDIAN	TEXAS
134	CITY OF MERTZON	TEXAS
135	CITY OF MESQUITE	TEXAS

136	CITY OF MIDLAND	TEXAS
137	CITY OF MILES	TEXAS
138	CITY OF MINERAL WELLS	TEXAS
139	CITY OF MISSION	TEXAS
140	CITY OF MONAHANS	TEXAS
141	CITY OF MORGAN	TEXAS
142	CITY OF MORGANS POINT RESORT	TEXAS
143	CITY OF MOUNT PLEASANT	TEXAS
144	CITY OF MULESHOE	TEXAS
145	CITY OF NEW BRAUNFELS	TEXAS
146	CITY OF NEWGULF	TEXAS
147	CITY OF ODESSA	TEXAS
148	CITY OF ODONNELL	TEXAS
149	CITY OF OLNEY	TEXAS
150	CITY OF OLTON	TEXAS
151	CITY OF OYSTER CREEK	TEXAS
152	CITY OF PADUCAH	TEXAS
153	CITY OF PALESTINE	TEXAS
154	CITY OF PANHANDLE	TEXAS
155	CITY OF PANORAMA VILLAGE	TEXAS
156	CITY OF PARIS	TEXAS
157	CITY OF PECOS	TEXAS
158	CITY OF PETERSBURG	TEXAS
159	CITY OF PFLUGERVILLE	TEXAS
160	CITY OF PHARR	TEXAS
161	CITY OF PINELAND	TEXAS
162	CITY OF PLAINS	TEXAS
163	CITY OF PLEASANTON	TEXAS
164	CITY OF POST.	TEXAS
165	CITY OF POTH	TEXAS
166	CITY OF POTTSBORO	TEXAS

167	CITY OF PRESIDIO	TEXAS
168	CITY OF QUITAQUE	TEXAS
169	CITY OF RANKIN	TEXAS
170	CITY OF ROBERT LEE	TEXAS
171	CITY OF ROCKPORT	TEXAS
172	CITY OF ROSCOE	TEXAS
173	CITY OF ROTAN	TEXAS
174	CITY OF ROUND ROCK	TEXAS
175	CITY OF RUNAWAY BAY	TEXAS
176	CITY OF RUNGE	TEXAS
177	CITY OF SAN ANGELO	TEXAS
178	CITY OF SAN MARCOS	TEXAS
179	CITY OF SAN SABA	TEXAS
180	CITY OF SANTA ROSA	TEXAS
181	CITY OF SEAGRAVES	TEXAS
182	CITY OF SEGUIN	TEXAS
183	CITY OF SEMINOLE	TEXAS
184	CITY OF SHALLOWATER	TEXAS
185	CITY OF SLATON	TEXAS
186	CITY OF SNYDER	TEXAS
187	CITY OF SOMERVILLE	TEXAS
188	CITY OF SOUTH HOUSTON	TEXAS
189	CITY OF SPUR	TEXAS
190	CITY OF STAMFORD	TEXAS
191	CITY OF STANTON	TEXAS
192	CITY OF STEPHENVILLE	TEXAS
193	CITY OF STERLING CITY	TEXAS
194	CITY OF STINNETT	TEXAS
195	CITY OF SWEETWATER	TEXAS
196	CITY OF TERRELL	TEXAS
197	CITY OF TEXARKANA	TEXAS

198	CITY OF THE COLONY	TEXAS
199	CITY OF TULIA	TEXAS
200	CITY OF UNIVERSAL CITY	TEXAS
201	CITY OF UVALDE	TEXAS
202	CITY OF VAN	TEXAS
203	CITY OF VAN HORN	TEXAS
204	CITY OF VAN VLECK	TEXAS
205	CITY OF WALNUT SPRINGS	TEXAS
206	CITY OF WEATHERFORD	TEXAS
207	CITY OF WEBSTER	TEXAS
208	CITY OF WELLINGTON	TEXAS
209	CITY OF WESLACO	TEXAS
210	CITY OF WEST	TEXAS
211	CITY OF WEST UNIVERSITY PLACE	TEXAS
212	CITY OF WHEELER	TEXAS
213	CITY OF WICHITA FALLS	TEXAS
214	CITY OF WINTERS	TEXAS
215	CITY OF WOLFFORTH	TEXAS
216	CLEAR LAKE CITY WATER AUTHORITY	TEXAS
217	COUNTRY CLUB WATER SUPPLY	TEXAS
218	DAVENPORT RANCH MUD # 1	TEXAS
219	DENTON CO FRESHWATER SUPPLY DIST	TEXAS
220	DFW INTERNATIONAL AIRPORT	TEXAS
221	EAST. CEDAR CREEK FWSD	TEXAS
222	EL PASO COUNTY WATER AUTHORITY	TEXAS
223	EL PASO WATER UTILITIES	TEXAS
224	EMERALD SPRINGS GOLF & CONF. CTR	TEXAS
225	FALLS MUD	TEXAS
226	FLYING 'L' PUD	TEXAS
227	FORT BEND COUNTY WCID #2	TEXAS
228	FORT CLARK SPRING MUD	TEXAS

229	FROST. MOBILE HOME PARK	TEXAS
230	GALVESTON CO. MUD # 1	TEXAS
231	GALVESTON CO. WCID # 1	TEXAS
232	GALVESTON CO. WCID 8	TEXAS
233	GUADALUPE-BLANCO RIVER AUTHORITY	TEXAS
234	HARRIS CO FWSD 58 INDIAN SHORES	TEXAS
235	HARRIS CO MUD #130	TEXAS
236	HARRIS CO MUD #36	TEXAS
237	HARRIS CO MUD #391	TEXAS
238	HARRIS CO, MUD # 23	TEXAS
239	HARRIS CO, MUD # 383	TEXAS
240	HARRIS CO, WCID 84	TEXAS
241	HARRIS CO. MUD # 11	TEXAS
242	HARRIS CO. MUD # 149	TEXAS
243	HARRIS CO. MUD # 185	TEXAS
244	HARRIS CO. MUD # 5	TEXAS
245	HARRIS CO. MUD # 70	TEXAS
246	HARRIS CO. MUD #208	TEXAS
247	HARRIS CO. MUD #237	TEXAS
248	HARRIS CO. MUD 155	TEXAS
249	HARRIS CO. MUD 266	TEXAS
250	HARRIS CO. MUD 322	TEXAS
251	HARRIS COUNTY MUD NO 284	TEXAS
252	HIDALGO CO MUD 1	TEXAS
253	HORSEPEN BAYOU MUD	TEXAS
254	HURST. CREEK MUD	TEXAS
255	INKS LAKE STATE PARK	TEXAS
256	INTERWOOD MUD	TEXAS
257	JACKRABBIT ROAD P.U.D.	TEXAS
258	JOHNSON COUNTY FWSD 1	TEXAS
259	KENDALL CO. WCID 1	TEXAS

260	LAGUNA MADRE WATER DISTRICT	TEXAS
261	LAJITAS UTILITIES CO. INC.	TEXAS
262	LAKE LBJ MUD	TEXAS
263	LAKE PALO PINTO AREA WSC	TEXAS
264	LAKEWAY MUD	TEXAS
265	LLANO CO. MUD # 1	TEXAS
266	LOST. CREEK MUD	TEXAS
267	LOST. MAPLES STATE NATURAL AREA	TEXAS
268	LOWER COLORADO RIVER AUTHORITY	TEXAS
269	MARKHAM MUD	TEXAS
270	MATAGORDA COUNTY WCID #6	TEXAS
271	MCCARTY FAMILY TRUST.	TEXAS
272	MEADOWLAKES MUD #1	TEXAS
273	MILLER MHP	TEXAS
274	MONTGOMERY CO. MUD # 48	TEXAS
275	MONTGOMERY CO. MUD #24	TEXAS
276	NEW BRAUNFELS UTILITIES	TEXAS
277	NEW CANEY MUD	TEXAS
278	NORTH ALAMO WSC	TEXAS
279	NORTH TEXAS MWD	TEXAS
280	NORTHGATE CROSSING MUD 2	TEXAS
281	NORTHWEST. HARRIS CO MUD 10	TEXAS
282	NORTHWEST. HARRIS CO MUD 9	TEXAS
283	NORTHWEST. TRAVIS CO MUD #2	TEXAS
284	OAK LEAF PARK CAMPGROUND	TEXAS
285	PALM VALLEY ESTATES UTIL DIST.	TEXAS
286	PINNACLE CLUB	TEXAS
287	PORT MANSFIELD PUBLIC UTILITY	TEXAS
288	PRICE WSC	TEXAS
289	QUAIL VALLEY GOLF CLUB	TEXAS
290	QUAIL VALLEY UTILITY DIST.	TEXAS

291	RIVER BEND RESORTS	TEXAS
292	RIVER PLACE ON LAKE AUSTIN	TEXAS
293	RIVER PLANTATION MUD	TEXAS
294	SAN ANTONIO MUD 1	TEXAS
295	SAN ANTONIO RIVER AUTHORITY	TEXAS
296	SAN ANTONIO WATER SYSTEMS	TEXAS
297	SAN PATRICIO MWD	TEXAS
298	SHELBY COUNTY FWSD #1	TEXAS
299	SHEPPARD AFB	TEXAS
300	STAGECOACH INN, INC.	TEXAS
301	TAPATIO SPRINGS SERVICE CO, INC	TEXAS
302	TEXAS DEPT OF HWYS & PUB TRANS	TEXAS
303	TEXAS DEPT. OF MH & MR	TEXAS
304	TOWN OF FLOWER MOUND	TEXAS
305	TOWN OF NEW DEAL	TEXAS
306	TOWN OF NEW HOME	TEXAS
307	TOWN OF ZAPATA	TEXAS
308	TRAIL DUST. CITY LINCOLN PARK	TEXAS
309	TRAVIS CO. MUD #4	TEXAS
310	TRAVIS CO. WCID-POINT VENTURE	TEXAS
311	TRAVIS COUNTY WCID 17	TEXAS
312	TRINITY RIVER AUTHORITY OF TEXAS	TEXAS
313	TROPHY CLUB MUD #1	TEXAS
314	U. S. AIR FORCE	TEXAS
315	U. S. AIR FORCE - REESE AFB	TEXAS
316	U.S. ARMY-CAMP BULLIS WATER WELL	TEXAS
317	UNION CARBIDE CORPORATION	TEXAS
318	UNITED STATES DEPT OF INTERIOR	TEXAS
319	UNIVERSITY OF TEXAS - VETERINARY DIVISION	TEXAS
320	UNIVERSITY OF TEXAS -CANCER RESEARCH CENTER	TEXAS
321	VALLEY MUD #2	TEXAS

322	WATERWOOD MUD #1	TEXAS
323	WEST. HARRIS CO MUD #7	TEXAS
324	WEST. MEMORIAL M.U.D	TEXAS
325	WEST. TEXAS UTILITIES COMPANY	TEXAS
326	WEST. TRAVIS CO. MUD #3	TEXAS
327	WEST. TRAVIS CO. REGIONAL W.S.	TEXAS
328	WINDERMERE OAKS SUBD.	TEXAS
329	WOODCREEK PHASE I	TEXAS

1	CENTRAL VALLEY	UTAH
2	PAYSON CITY WASTEWATER TREATMENT PLANT	UTAH
3	PAYSON POWER	UTAH
4	SAINT GEORGE REGIONAL WATER RECLAMATION FACILITY	UTAH
5	SALT LAKE CITY WRF	UTAH
6	SOUTH DAVIS SEWER SOUTH PLANT	UTAH
7	TOOELE CITY WWTP	UTAH

1	ALEXANDRIA SANITATION AUTHORITY	VIRGINIA
2	HAMPTON ROADS SANITATION DISTRICT	VIRGINIA
3	LOUDOUN COUNTY SANITATION AUTHORITY	VIRGINIA
4	UPPER OCCOQUAN SEWAGE AUTHORITY	VIRGINIA

1	CITY OF CHENEY	WASHINGTON
2	CITY OF EPHRATA	WASHINGTON
3	CITY OF OLYMPIA	WASHINGTON
4	CITY OF ROYAL CITY	WASHINGTON
5	CITY OF SNOQUALMIE	WASHINGTON
6	CITY OF YELM, WA	WASHINGTON
7	KING COUNTY	WASHINGTON
8	KING COUNTY DNRP WASTEWATER TREATMENT DIVISION	WASHINGTON
9	LOTT ALLIANCE	WASHINGTON
10	MASON COUNTY DEPT. OF UTILITIES AND WASTE MGMT.	WASHINGTON

11	WA STATE DEPT OF ECOLOGY	WASHINGTON
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1	ALMOND WASTEWATER TREATMENT FACILITY	WISCONSIN
2	ATHENS WASTEWATER TREATMENT FACILITY	WISCONSIN
3	BARRON-CAMERON WASTEWATER TREATMENT FACILITY	WISCONSIN
4	CATAWBA KENNAN JOINT SEWAGE COMMISSION	WISCONSIN
5	CHASEBURG WASTEWATER TREATMENT FAC	WISCONSIN
6	CHRISTMAS MOUNTAIN SANITARY DISTRICT WWTF	WISCONSIN
7	CITY OF HAYWARD	WISCONSIN
8	COBB WASTEWATER TREATMENT FACILITY	WISCONSIN
9	CUSHING SANITARY DISTRICT #1	WISCONSIN
10	DONS MOBILE MANOR WWTF	WISCONSIN
11	ELLSWORTH COOP CREAMERY	WISCONSIN
12	FAIRCHILD WASTEWATER TREATMENT FAC	WISCONSIN
13	FAIRWATER WASTEWATER TREATMENT FACILITY	WISCONSIN
14	FRANCIS CREEK WASTEWATER TRTMNT FAC	WISCONSIN
15	HUSTLER WASTEWATER TREATMENT FACILITY	WISCONSIN
16	IOLA WASTEWATER TREATMENT FACILITY	WISCONSIN
17	J&L OIL INC. WWTF C/O HERBERT JONES	WISCONSIN
18	JIM FALLS SANITARY DISTRICT 1	WISCONSIN
19	KINGSTON VILLAGE	WISCONSIN
20	L E PHILLIPS SCOUT RESERVATION	WISCONSIN
21	LAKELAND VILLAGE LLC	WISCONSIN
22	MADISON METROPOLITAN SEWERAGE DISTRICT WWTF	WISCONSIN
23	MAIDEN ROCK WASTEWATER TREATMENT FACILITY	WISCONSIN
24	MARITIME LIQUID WASTE TRANSPORT INC.	WISCONSIN
25	MATTOON WASTEWATER TREATMENT FAC	WISCONSIN
26	NESHKORO WWTF	WISCONSIN
27	OCEAN SPRAY CRANBERRIES, INC.	WISCONSIN
28	PIGEON FALLS WWTF	WISCONSIN
29	RIDGELAND WASTEWATER TREATMENT PLANT	WISCONSIN

30	SANGER B POWERS WASTEWATR TRTMNT FAC	WISCONSIN
31	TOWN OF CABLE - SANITARY DISTRICT NO. 1	WISCONSIN
32	UNITED LIQUID WASTE RECYCLING INC	WISCONSIN
33	VILLAGE OF MASON	WISCONSIN
34	VILLAGE OF MILLTOWN	WISCONSIN
35	WI DOC FOX LK CORRECTIONAL INSTITUTION WWTF	WISCONSIN
36	WILD ROSE WASTEWATER TREATMENT FAC	WISCONSIN

APPENDIX C

SUMMARY REPORT: NATIONWIDE REUSE SUMMARIES— UTILITY AND RECLAIMED WATER FACILITY

Note: This is a standard preformatted summary report for the database.

Nationwide Reuse Summaries - Utility and Reclaimed Water Facility

State	No. of Utilities with a Record in the National Database ^a	No. of Facilities with a Record in the National Database ^a	No. of Production Facilities Reporting Data	Reported Permitted Design Capacity of the Facilities (mgd)	Reported Actual Annual Reclaimed Water Production (Billions of gallons)	No. of Distribution Facilities/ Systems Reporting Data	Reported Length of Pipe Within Reclaimed Water Distribution Facility/System (miles)
(AK) Alaska	0	0	0	-	-	0	-
(AL) Alabama	0	0	0	-	-	0	-
(AR) Arkansas	0	0	0	-	-	0	-
American Samoa	0	0	0	-	-	0	-
(AZ) Arizona	97	128	25	226.61 (24 ^b)	18.24 (20 ^b)	25	220.92 (16 ^b)
(CA) California	248	100	85	707.35 (81 ^b)	86.95 (73 ^{***})	67	1,180.56 (54 ^{***})
(CO) Colorado	5	4	4	49.4 (4 ^b)	5.19 (4 ^b)	4	65 (4 ^b)
(CT) Connecticut	0	0	0	-	-	0	-
(DC) District of Columbia	0	0	0	-	-	0	-
(DE) Delaware	0	0	0	-	-	0	-
(FL) Florida	294	483	296	1,027.04 (293 ^b)	218.08 (290 ^b)	49	5,385.28 (38 ^b)
(GA) Georgia	1	1	1	-	-	1	-
Guam	0	0	0	-	-	0	-

^aIncludes all utility records provided by the individual states during the development of the database. Some utility records include only the utility contact information because the utility did not go online and enter data.

^bValues in parentheses indicate the number of facility records for which there is some data entry for that category.

State	No. of Utilities with a Record in the National Database ^a	No. of Facilities with a Record in the National Database ^a	No. of Production Facilities Reporting Data	Reported Permitted Design Capacity of the Facilities (mgd)	Reported Actual Annual Reclaimed Water Production (Billions of gallons)	No. of Distribution Facilities/ Systems Reporting Data	Reported Length of Pipe Within Reclaimed Water Distribution Facility/System (miles)
(HI) Hawaii	0	0	0	-	-	0	-
(IA) Iowa	0	0	0	-	-	0	-
(ID) Idaho	1	1	1	4 (1 ^b)	0.73 (1 ^b)	0	-
(IL) Illinois	4	0	0	-	-	0	-
(IN) Indiana	0	0	0	-	-	0	-
(KS) Kansas	0	0	0	-	-	0	-
(KY) Kentucky	0	0	0	-	-	0	-
(LA) Louisiana	0	0	0	-	-	0	-
(MA) Massachusetts	0	0	0	-	-	0	-
(MD) Maryland	0	0	0	-	-	0	-
(ME) Maine	0	0	0	-	-	0	-
Marshall Islands	0	0	0	-	-	0	-
(MI) Michigan	0	0	0	-	-	0	-
(MN) Minnesota	0	0	0	-	-	0	-
(MO) Missouri	0	0	0	-	-	0	-
(MS) Mississippi	0	0	0	-	-	0	-

^aIncludes all utility records provided by the individual states during the development of the database. Some utility records include only the utility contact information because the utility did not go online and enter data.

^bValues in parentheses indicate the number of facility records for which there is some data entry for that category.

State	No. of Utilities with a Record in the National Database ^a	No. of Facilities with a Record in the National Database ^a	No. of Production Facilities Reporting Data	Reported Permitted Design Capacity of the Facilities (mgd)	Reported Actual Annual Reclaimed Water Production (Billions of gallons)	No. of Distribution Facilities/ Systems Reporting Data	Reported Length of Pipe Within Reclaimed Water Distribution Facility/System (miles)
(MT) Montana	0	0	0	-	-	0	-
(NC) North Carolina	65	82	7	80.03 (6 ^b)	0.01 (5 ^b)	7	15.45 (5 ^b)
(ND) North Dakota	0	0	0	-	-	0	-
(NE) Nebraska	1	0	0	-	-	0	-
(NH) New Hampshire	0	0	0	-	-	0	-
(NJ) New Jersey	14	0	0	-	-	0	-
(NM) New Mexico	28	30	6	-	-	6	-
(NV) Nevada	5	2	1	42.5 (1 ^b)	2.55 (1 ^b)	2	57 (2 ^b)
(NY) New York	0	0	0	-	-	0	-
(OH) Ohio	1	0	0	-	-	0	-
(OK) Oklahoma	1	0	0	-	-	0	-
(OR) Oregon	0	0	0	-	-	0	-
(PA) Pennsylvania	0	0	0	-	-	0	-
Puerto Rico	0	0	0	-	-	0	-
Palau	0	0	0	-	-	0	-
(RI) Rhode Island	0	0	0	-	-	0	-

^aIncludes all utility records provided by the individual states during the development of the database. Some utility records include only the utility contact information because the utility did not go online and enter data.

^bValues in parentheses indicate the number of facility records for which there is some data entry for that category.

State	No. of Utilities with a Record in the National Database ^a	No. of Facilities with a Record in the National Database ^a	No. of Production Facilities Reporting Data	Reported Permitted Design Capacity of the Facilities (mgd)	Reported Actual Annual Reclaimed Water Production (Billions of gallons)	No. of Distribution Facilities/ Systems Reporting Data	Reported Length of Pipe Within Reclaimed Water Distribution Facility/System (miles)
(SC) South Carolina	69	6	0	-	-	0	-
(SD) South Dakota	0	0	0	-	-	0	-
(TN) Tennessee	0	0	0	-	-	0	-
(TX) Texas	329	67	64	707.14 (56 ^b)	31.42 (55 ^b)	57	403.17 (46 ^b)
(UT) Utah	7	7	0	-	-	0	-
(VA) Virginia	4	2	2	54.5 (2 ^b)	11.16 (2 ^b)	1	0.5 (1 ^b)
Virgin Islands	0	0	0	-	-	0	-
(VT) Vermont	0	0	0	-	-	0	-
(WA) Washington	11	6	5	3.51 (5 ^b)	0 (2 ^b)	5	7.2 (5 ^b)
(WI) Wisconsin	36	2	1	-	-	2	-
(WV) West Virginia	0	0	0	-	-	0	-
(WY) Wyoming	0	0	0	-	-	0	-
TOTAL	1221	921	498	2,902.08	374.33	226	7,335.08

^aIncludes all utility records provided by the individual states during the development of the database. Some utility records include only the utility contact information because the utility did not go online and enter data.

^bValues in parentheses indicate the number of facility records for which there is some data entry for that category.

APPENDIX D

SUMMARY REPORT: NATIONWIDE REUSE SUMMARIES— RECLAIMED WATER USE BY END USE CATEGORY

Note: This is one of two standard preformatted summary reports from the database.

Nationwide Reuse Summaries - Reclaimed Water Use by End Use Category

State	Irrigation (Thousand Gallons/Year)	Recharge (Thousand Gallons/Year)	Industrial (Thousand Gallons/Year)	Wholesale (Thousand Gallons/Year)	Commercial (Thousand Gallons/Year)	Wetlands (Thousand Gallons/Year)
(AK) Alaska	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(AL) Alabama	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(AR) Arkansas	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
American Samoa	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(AZ) Arizona	8353461 (13-97)	2604810 (13-97)	1271560 (13-97)	- (13-97)	172666 (13-97)	- (13-97)
(CA) California	98703436 (56-248)	7177374 (56-248)	16171316 (56-248)	152163 (56-248)	3919077 (56-248)	322898 (56-248)
(CO) Colorado	1082332 (4-5)	- (4-5)	1830819 (4-5)	- (4-5)	145611 (4-5)	- (4-5)
(CT) Connecticut	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(DC) District of Columbia	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(DE) Delaware	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(FL) Florida	93609155 (280-294)	37999000 (280-294)	16496075 (280-294)	- (280-294)	46299299 (280-294)	14580000 (280-294)

The values in parentheses indicate the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in this database.

State	Irrigation (Thousand Gallons/Year)	Recharge (Thousand Gallons/Year)	Industrial (Thousand Gallons/Year)	Wholesale (Thousand Gallons/Year)	Commercial (Thousand Gallons/Year)	Wetlands (Thousand Gallons/Year)
(GA) Georgia	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)
Guam	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(HI) Hawaii	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(IA) Iowa	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(ID) Idaho	100030 (1-1)	- (1-1)	- (1-1)	- (1-1)	- (1-1)	78525 (1-1)
(IL) Illinois	- (0-4)	- (0-4)	- (0-4)	- (0-4)	- (0-4)	- (0-4)
(IN) Indiana	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(KS) Kansas	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(KY) Kentucky	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(LA) Louisiana	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(MA) Massachusetts	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(MD) Maryland	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(ME) Maine	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)

The values in parentheses indicate the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in this database.

State	Irrigation (Thousand Gallons/Year)	Recharge (Thousand Gallons/Year)	Industrial (Thousand Gallons/Year)	Wholesale (Thousand Gallons/Year)	Commercial (Thousand Gallons/Year)	Wetlands (Thousand Gallons/Year)
Marshall Islands	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(MI) Michigan	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(MN) Minnesota	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(MO) Missouri	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(MS) Mississippi	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(MT) Montana	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(NC) North Carolina	367000 (4-65)	- (4-65)	3000 (4-65)	- (4-65)	0 (4-65)	- (4-65)
(ND) North Dakota	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(NE) Nebraska	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)
(NH) New Hampshire	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(NJ) New Jersey	- (0-14)	- (0-14)	- (0-14)	- (0-14)	- (0-14)	- (0-14)
(NM) Mexico	- (0-28)	- (0-28)	- (0-28)	- (0-28)	- (0-28)	- (0-28)
(NV) Nevada	4876046 (2-5)	- (2-5)	- (2-5)	- (2-5)	- (2-5)	- (2-5)

The values in parentheses indicate the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in this database.

State	Irrigation (Thousand Gallons/Year)	Recharge (Thousand Gallons/Year)	Industrial (Thousand Gallons/Year)	Wholesale (Thousand Gallons/Year)	Commercial (Thousand Gallons/Year)	Wetlands (Thousand Gallons/Year)
New York	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
Ohio	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)
Oklahoma	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)	- (0-1)
Oregon	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
Pennsylvania	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
Puerto Rico	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
Palau	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
Rhode Island	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
South Carolina	- (0-69)	- (0-69)	- (0-69)	- (0-69)	- (0-69)	- (0-69)
South Dakota	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
Tennessee	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
Texas	7074296 (41-329)	733118 (41-329)	2170376 (41-329)	- (41-329)	372198 (41-329)	- (41-329)
Utah	294000 (1-7)	- (1-7)	- (1-7)	- (1-7)	- (1-7)	- (1-7)

The values in parentheses indicate the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in this database.

State	Irrigation (Thousand Gallons/Year)	Recharge (Thousand Gallons/Year)	Industrial (Thousand Gallons/Year)	Wholesale (Thousand Gallons/Year)	Commercial (Thousand Gallons/Year)	Wetlands (Thousand Gallons/Year)
(VA) Virginia	- (1-4)	- (1-4)	- (1-4)	11000000 (1-4)	- (1-4)	- (1-4)
Virgin Islands	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(VT) Vermont	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(WA) Washington	8875 (5-11)	18250 (5-11)	1001 (5-11)	- (5-11)	179 (5-11)	- (5-11)
(WI) Wisconsin	325830 (1-36)	- (1-36)	- (1-36)	- (1-36)	- (1-36)	- (1-36)
(WV) West Virginia	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
(WY) Wyoming	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)	- (0-0)
TOTAL	214794460	48532551	37944146	11152163	50909029	14981423

The values in parentheses indicate the number of utilities reporting reclaimed water use for the noted category versus the total number of utilities in the state (R-T) in this database.

APPENDIX E

SUMMARY OF CURRENT REUSE-RELATED WEBSITE ADDRESSES IN THE DATABASE

REUSE RELATED LINKS

National Database Project Advisory Committee Links

Description	Link
WaterReuse Association	WRA
U.S. Environmental Protection Agency	USEPA
U.S. Bureau of Reclamation, Water Treatment Engineering and Research Group	USBR-WRERG
California State Water Resources Control Board	CSWRCB
Florida Department of Environmental Protection	FDEP
City of San Jose	City of San Jose
California Department of Water Resources	CDWR

Reuse States: Reuse Program, Regulations and Permitting

Arizona	
Description	Link
Arizona Department of Water Resources	ADWR ADWR Laws and Rules
Arizona Department of Environmental Quality	ADEQ ADEQ-Permits
Reclaimed Water Quality Standards - Arizona	RWQ Standards - Arizona
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
California	
California State Water Resources Control Board	SWCB Recycling
California Department of Water Resources	DWR
Safe Water Reuse	SWR
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Colorado	
Colorado Department of Natural Resources, Division of Water Resources	CDNR-DWR
Colorado Department of Public Health and Environment, Water Quality Control	CDPHE-WQC
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Arkansas	
Arkansas Department of Environmental Quality, Water Division	ADEQ-WD
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Florida	
Florida Department of Environmental Protection, Wastewater Program/Water Reuse Program	FDEP-WP FDEP-WRP
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Georgia	
Georgia Department of Natural Resources, Environmental Protection Division, Watershed Protection Branch	Georgia DNR-EPD-WPB
The Water Council	Georgia Water Council
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC

Hawaii	
Hawaii Water Environment Association, Environmental Protection Division	HWEA-ORG
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Idaho	
Idaho Department of Environmental Quality	IDEO
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Illinois	
Illinois Environmental Protection Agency	IEPA
Illinois Pollution Control Board	IPCB
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Kansas	
Kansas Water Office	KWO
Kansa Water Authority	KWA
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Massachusetts	
Massachusetts Executive Office of Environmental Affairs, Massachusetts Water Policy	MEOEA - MWP
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Montana	
Montana Department of Environmental Quality	MDEQ
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
North Carolina	
North Carolina Division of Water Quality	NCDWQ
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC

Nebraska	
Nebraska Department of Environmental Quality, Rules and Regulations	NDEQ R&R
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
New Mexico	
New Mexico Office of the State Engineer/Interstate Stream Commission, Water Conservation Program	NMOSE/ISC - WCP
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Nevada	
Nevada Division of Environmental Protection, Bureau of Water Pollution Control	NDEP-BWPC
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Ohio	
Ohio Environmental Protection Agency, Division of Surface Water	OEPA-DSW
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Oklahoma	
Oklahoma Water Resources Board -	OWRB
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
Oregon	
Oregon Department of Environmental Quality, Water Reuse Program	ODEQ - WRP
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC
South Carolina	
South Carolina Department of Health and Environmental Control, Bureau of Water	SCDHEC-BW
U.S. EPA	U.S. EPA
Gray Water Policy Center	GWPC

Texas	
Texas Water Development Board	<u>TWDB</u>
U.S. EPA	<u>U.S. EPA</u>
Gray Water Policy Center	<u>GWPC</u>
Utah	
Utah Water Resources, Utah State Water Plan	<u>UWR - USWP</u>
U.S. EPA	<u>U.S. EPA</u>
Gray Water Policy Center	<u>GWPC</u>
Virginia	
Virginia Department of Environmental Quality, Water Quality Programs, Water Regulations	<u>VDEQ-WQP-WR</u>
U.S. EPA	<u>U.S. EPA</u>
Gray Water Policy Center	<u>GWPC</u>

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