Partnership for Safe Water

Annual Data Summary Report

January 2006

Foreword

This annual data summary report has been approved for publication by the *Partnership for Safe Water* Steering Committee. This report is a technical summary of the data submitted by participants in the *Partnership for Safe Water* treatment plant optimization program.

The data represented primarily includes turbidity data covering the period from June 2004 to May 2005. The purpose of this report is to provide collective treatment plant performance results that can be used by individual plants to compare their performance with those of all of the *Partnership* participants.

Caution should be exercised when interpreting the data contained in this report. Although more than 400 surface water filtration plants serving 85 million people submitted the data, this is only a fraction of the total number of treatment plants nationwide. Many of these plants are among the largest and best run in the country. Also, it should be noted that the data are only from participants in the program. It may, therefore, be misleading to extrapolate the data to represent national trends.

Questions regarding the content of the report should be directed to **Bill Lauer**, *Partnership for Safe Water* Program Manager, AWWA, 6666 W. Quincy Ave., Denver, CO 80235 (Tel. 303-347-6220, e-mail: blauer@awwa.org).

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"Over 85 million people are receiving higher quality drinking water from surface water treatment plants that are participating in the voluntary Partnership for Safe Water program."

Introduction

The *Partnership for Safe Water* was started in 1995 when six organizations dedicated to safe drinking water came together to develop a program that reduced the risk of *Cryptosporidium* exposure from plants treating surface water. The *Partnership* organizations are the American Water Works Association (AWWA), the Association of State Drinking Water Administrators (ASDWA), the Association of Metropolitan Water Agencies (AMWA), the National Association of Water Companies (NAWC), the American Water Works Association Research Foundation (AWWARF), and the United States Environmental Protection Agency (USEPA). The tools that were developed by the *Partnership* are based on methods described in the handbook *Optimizing Water Treatment Plant Performance Using the Composite Correction Program* - EPA/625/6-91/027.

The *Partnership* program seeks improved water quality, not by meeting more stringent regulations, but by using flexible technical tools that allow each plant to customize performance improvements at their own pace with limited capital spending. Hundreds of treatment plants are now benefiting from membership and participation. The primary benefits are:

- Reduced risk from microbiological contaminants
- Advanced preparation for new regulatory requirements of the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)
- Customized performance enhancement plans using the program's technical tools
- Comparison data from national database (in this report)
- Enhanced employee support for high quality water
- Awards and recognition for achievements gain customer confidence
- Documented achievements are recognized by State regulators

In December 2005, USEPA promulgated the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). The rule identifies options for treatment "credits" towards complying with requirements for the removal of *Cryptosporidium*. The *Partnership* data collection software is compatible with the data documentation requirements of the rule. Utilities meeting the *Partnership* goals are very well positioned to obtain the credits allowed for improved treatment plant performance.

The *Partnership* is constantly expanding and improving. Over the past year several enhancements have been implemented (described in Appendix B) that have increased the value to participating utilities and their employees. The cost of the program has not changed since its inception but the number of benefits continues to grow. This report quantifies the national impact of this voluntary program. Individual plants can use this information to demonstrate to management and customers the cost effective use of their resources to gain measurable water quality improvements.

Membership Statistics

The *Partnership for Safe Water* utility membership as of December 2005 consisted of 233 utilities with 406 water treatment plants. The utility size distribution by population served is shown in Figure 1. The size categories are those used by AWWA to determine utility membership and are based on the number of service connections (these size ranges have been converted to population served for this comparison). Although a substantial number of the *Partnership* utilities are the very largest in the country, more than 50% of the member utilities serve fewer than 100,000 customers. The number of utilities in the smaller size categories is increasing. Collectively, the utility partners serve a combined population of more than 85 million persons or more than 60% of the U.S. population served by surface water.

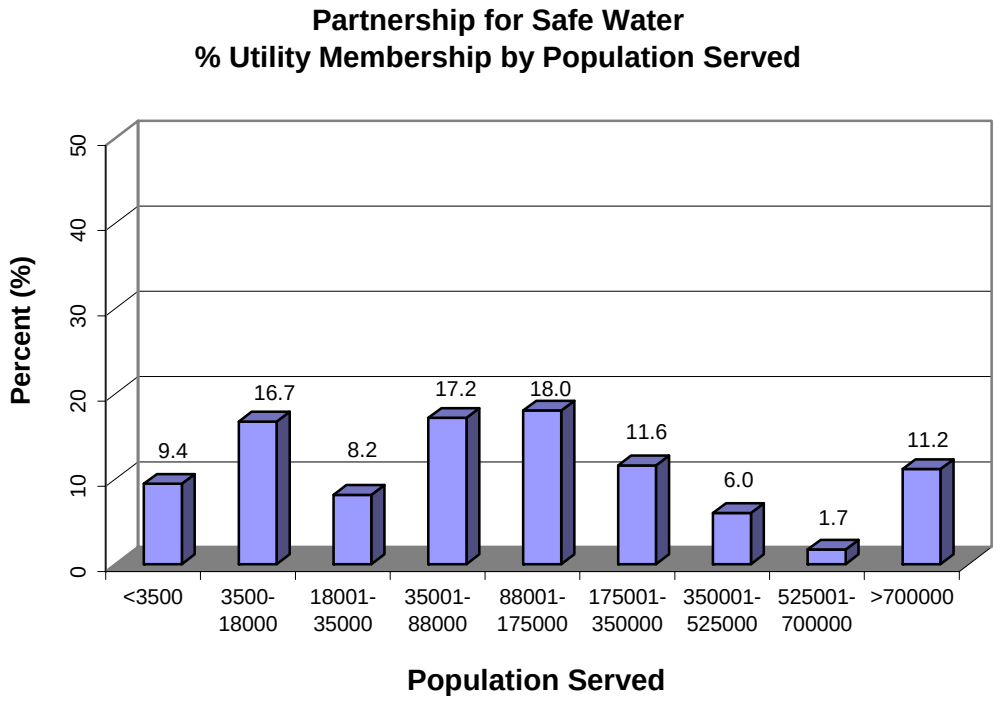

Figure 1

Another comparison is the utilities that are participating in the *Partnership for Safe Water* program as a percentage of the total number of drinking water utilities in the United States. The *Partnership* is directed at the optimization of water treatment plant performance for systems that derive water from surface water sources. Therefore, the correct comparison is the total number of utilities that have treatment plants and are receiving surface water or groundwater under the influence of surface water (Figure 2). These numbers are more difficult to obtain. Estimates of the number of surface water treatment plant utilities were obtained from the AWWA Water Industry Database (Water\:Stats) and the USEPA Safe Drinking Water Information System (SDWIS).

There are two notable observations. The very largest surface water treatment utilities are highly represented (more than 90% of the eligible utilities serving more than 700,000 are members of the *Partnership*). More than 30% of all the utilities serving between 35,000 and 700,000 are now members of the *Partnership.* Potential membership growth in this range is relatively limited when compared to the thousands of utilities that serve less than 35,000 customers.

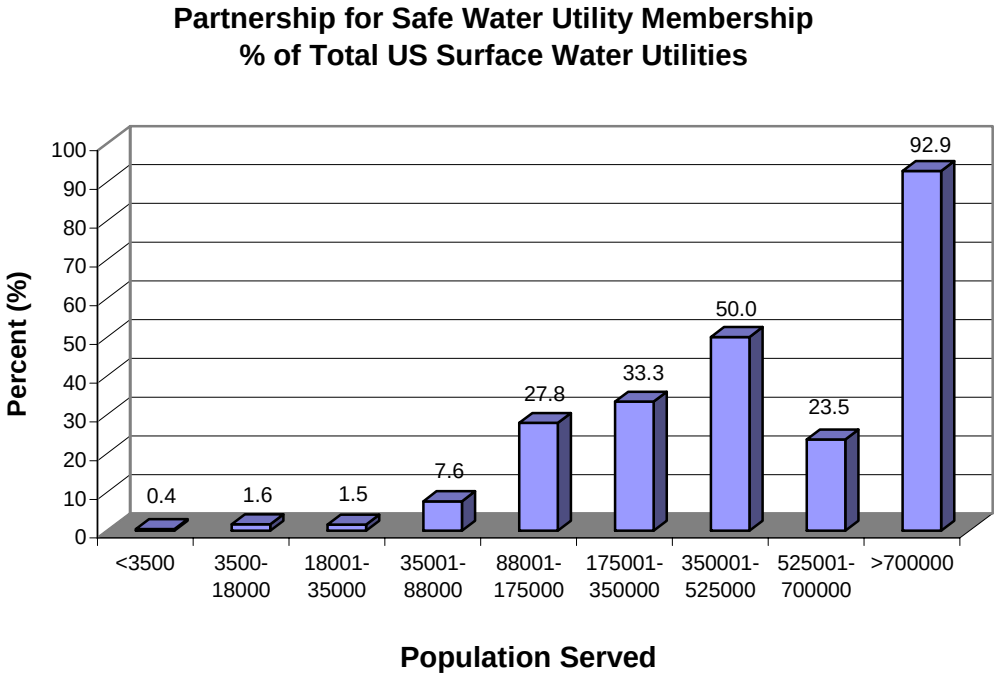

Figure 2

Partnership Data Submittals

The *Partnership for Safe Water* consists of four phases. Each phase is intended to assist utilities in progressing toward higher finished water quality goals. Utility partners pursue these performance goals by completing specific tasks associated with each phase of the program.

Phase I is an agreement to complete the program through Phase III (a treatment plant self-assessment). Detailed tools, such as the performance assessment data collection software and the self-assessment handbook are provided to utility partners to facilitate completion of Phases II and III.

Phase II involves the collection, review and analysis of historical turbidity performance for each utility so that a performance baseline can be established. Annual reviews of current performance data against the established baseline assists utilities in assessing the impact of the *Partnership for Safe Water* on their system. The analysis of individual site baseline data, when compiled with all other systems, will assist in assessing the impact of the *Partnership for Safe Water* on a national basis.

Phase III requires significant effort, but the potential benefits are great. Utilities review their plant operation using the structured approach provided in the *Partnership* guidance manual to identify areas limiting improved performance. A site-specific plan is then developed to address these areas and improve water quality. Submittal of a self-assessment completion report signifies the conclusion of Phase III. The report is reviewed by a team of trained utility peers who are members of the Performance Evaluation Assessment Committee (PEAC). The PEAC team determines if the report reflects a "good faith" effort by the utility toward treatment plant optimization. If so, the PEAC then recommends that the plant receive the "Directors Award" for completion of Phase III.

At the time of publication of the last Annual Report, one hundred eighty-four plants had completed Phase III. As of December 2005, one hundred ninety-seven certificates of recognition (Directors Awards) had been recommended.

The Five-Year Directors Award (identified in Figures 3 and 4 as 5-yr Phase III) is conferred on plants that have maintained Phase III Directors Award status for five years, have demonstrated improved performance, and have made progress toward optimized plant operation. Forty-six plants were recognized for this achievement in 2005.

The program for Phase IV was approved by the Steering Committee in June 2001 and the requirements were refined in November 2002. Three plants have achieved Phase IV. Plants that successfully complete the requirements (described in the application guidelines) are recognized for the “Excellence in Water Treatment” award. In general, a plant will submit documentation of optimized performance based on individual filter turbidity levels. The PEAC reviews the documentation and, if acceptable, recommends the award based upon their evaluation. An on-site audit is not part of the process. There is no additional fee for Phase IV participation.

A new level of recognition was added in 2004. One Five-Year Excellence in Water Treatment Award (identified in Figures 3 and 4 as 5-yr Phase IV) has been presented. This plant has maintained fully optimized plant performance for five consecutive years.

An illustration of the progress of plants through the *Partnership* program phases is shown in Figure 3. The first bar is the number of plants that have joined the program since its inception in 1995. Plants that have submitted data and that have received the Directors Award are shown in the next two bars. This figure is a historical review of all of the plants that have ever been enrolled in the *Partnership.* These differ from the totals in Figure 4 because it only shows the plants that are currently active in the program.

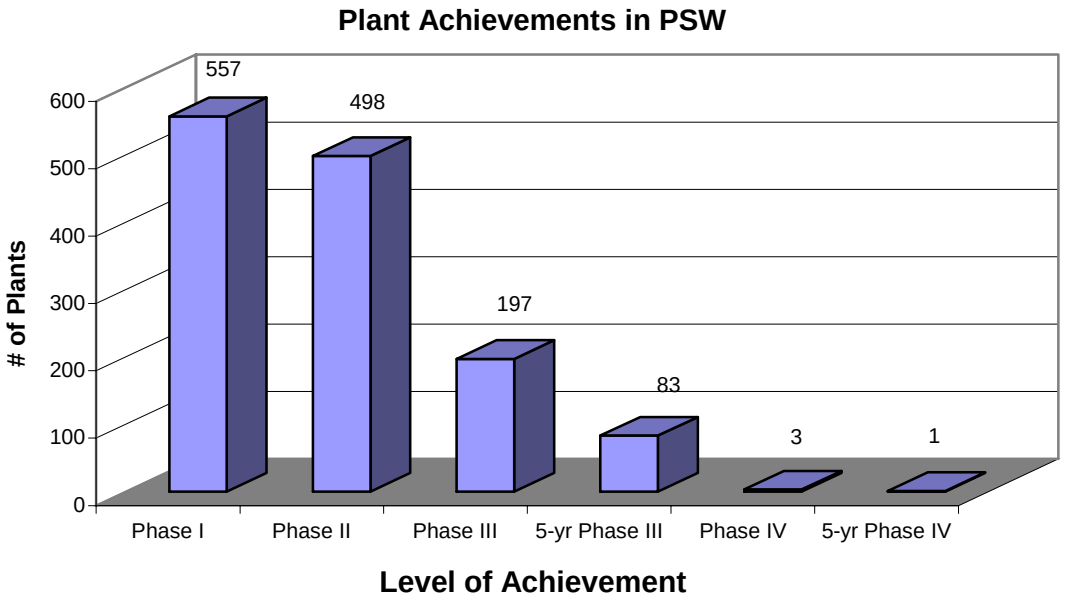

Figure 3

The current status of plants from participating utilities is shown in Figure 4. Most of the plants are in Phase II, but a substantial number have already achieved Phase III. There are a few plants that have joined the *Partnership* and have not yet submitted data to move to Phase II of the program.

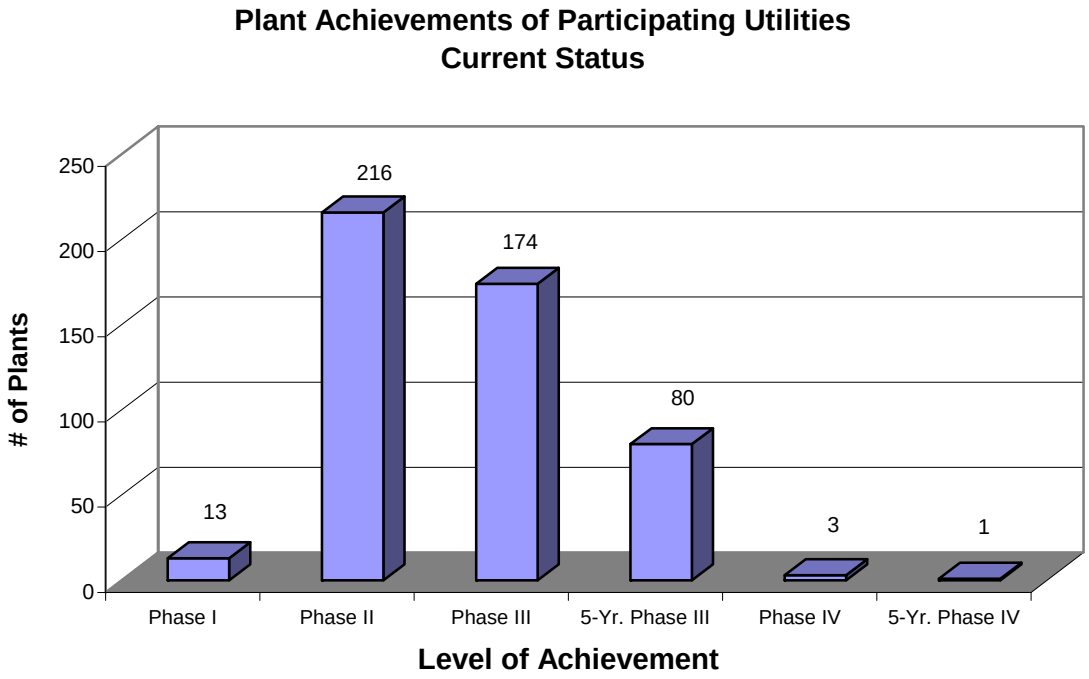

Figure 4

Finished Water Turbidity Results

Water treatment plants that are participating in the *Partnership* submit turbidity results annually. Finished water results from the combined plant effluent are entered into the *Partnership* data collection software (test results at four-hour intervals or maximum daily values may be submitted). The software calculates statistics for plant performance evaluation and presents the information in tabular and graphical formats. The calculated monthly 95th percentile values and the monthly maximum values are charted and a frequency distribution plot is constructed using these values.

The annual report data received from all *Partnership* participants (more than 500,000 individual data points are used in this analysis) were analyzed by developing frequency distributions of the monthly 95th percentile turbidity data and the monthly maximum turbidity data. The frequency distribution may be interpreted to represent the percent of monthly turbidity values (either 95th percentile or maximum value) that are less than or equal to a given value. Figure 5 shows the frequency distribution of the annual report data from all participating treatment plants for the most recent reporting period (6/1/04-5/31/05).

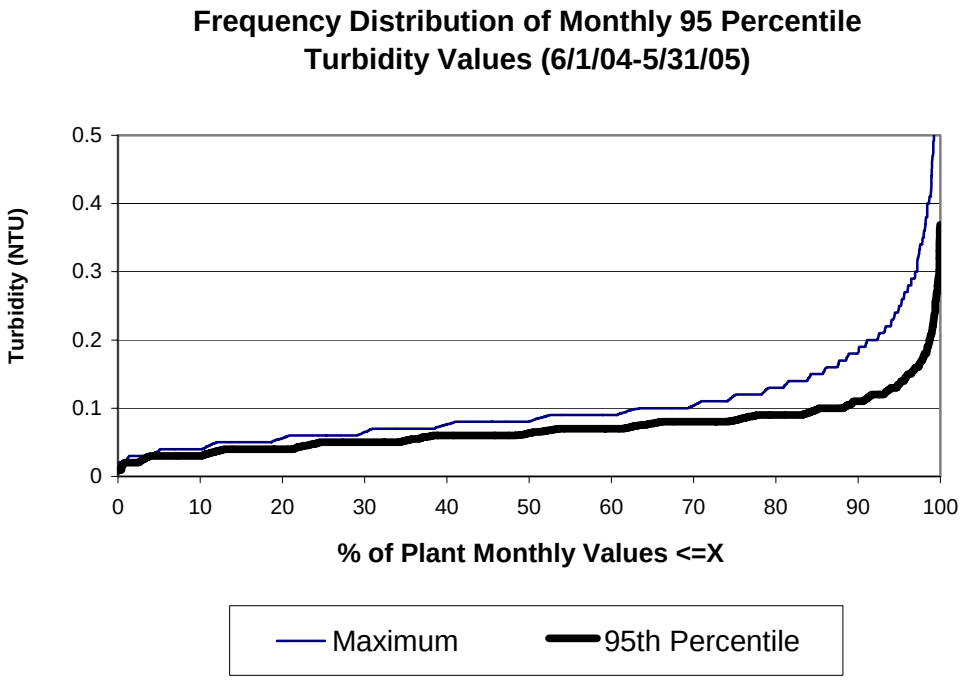

Figure 5

Many comparisons are possible. Utilities should examine the frequency distribution from their annual report submittal and compare it to the one above that represents all of the data from all of the *Partnership* treatment plants. The graph above yields some interesting information. For example, approximately 98% of the monthly 95th percentile turbidities reported by all the utility partners were less than 0.2 NTU. Likewise, 97% of the monthly maximum turbidity values were less than 0.3 NTU. The results for this reporting period compare favorably with those from previous years.

Phase III Treatment Plant Finished Water Turbidity Results

One hundred ninety-seven plants have completed the self-assessment and have received the Directors Award of recognition. Figure 6 illustrates the decrease in submittals in recent years. The unusually high number of self-assessments received in 1999 and 2000 were due to one group of utilities.

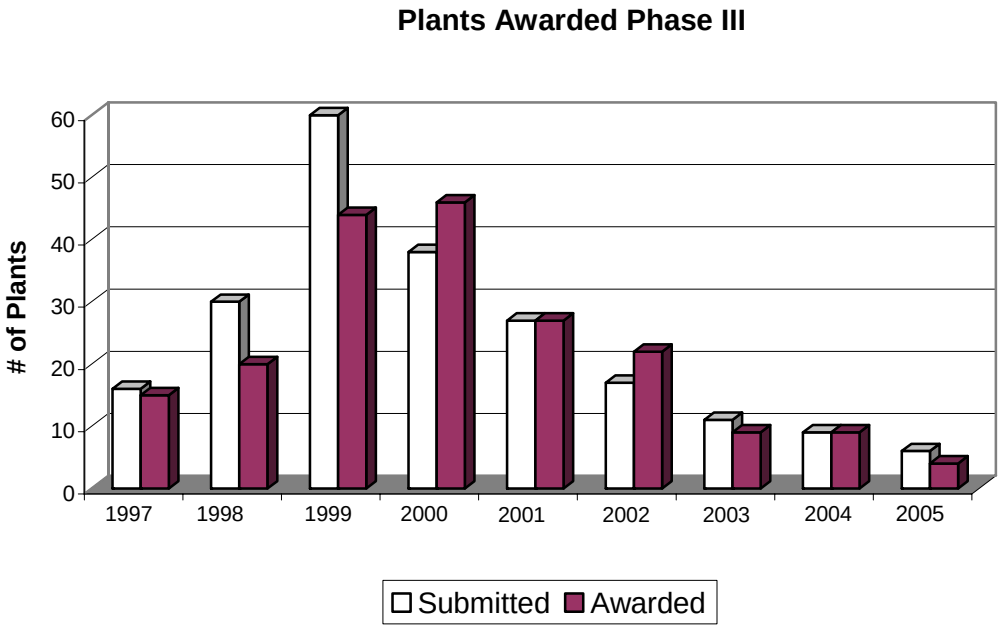

Figure 6

The performance results from Phase III plants reflect those that have gone through the self-assessment process. Figure 7 shows the frequency distribution for the monthly 95th percentile turbidity values for the plants that have completed Phase III. The "baseline" data for Directors Award plants is compared with the most recent data (6/04-5/05). This comparison shows that (based on 95th percentile turbidity values) plant performance improved more than 50% following the *Partnership* self-assessment. This is strong evidence of the effectiveness of this program.

Frequency Distribution of Monthly 95 Percentile Turbidity Values for Plants Completing Phase III

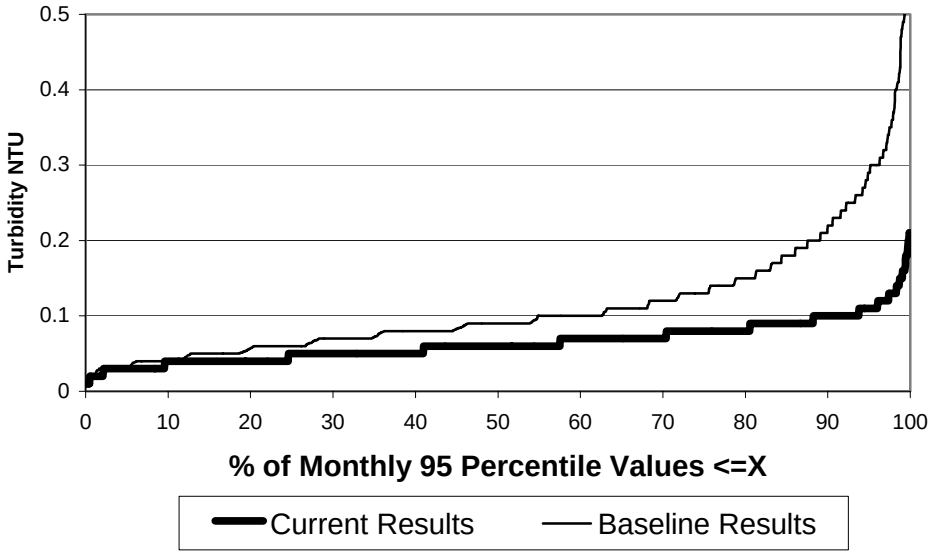

Figure 7

Another way of examining this data is to look at the current year individual monthly 95th percentile values for plants that have completed Phase III and those that have not. The percent of monthly 95th percentile values reported in three size ranges (<0.10NTU, 0.10-0.19NTU, and 0.20-0.30NTU) are shown in Figure 8. A higher percentage of monthly 95th percentile values from Phase III award plants are in the <0.10 NTU size range. The percentage of these values from non-Phase III award plants is increasing when compared to previous years. The plants are striving to meet the *Partnership* goal even though they have not yet applied for the Directors Award. This comparison is further verification of performance improvement from the Phase III self-assessment.

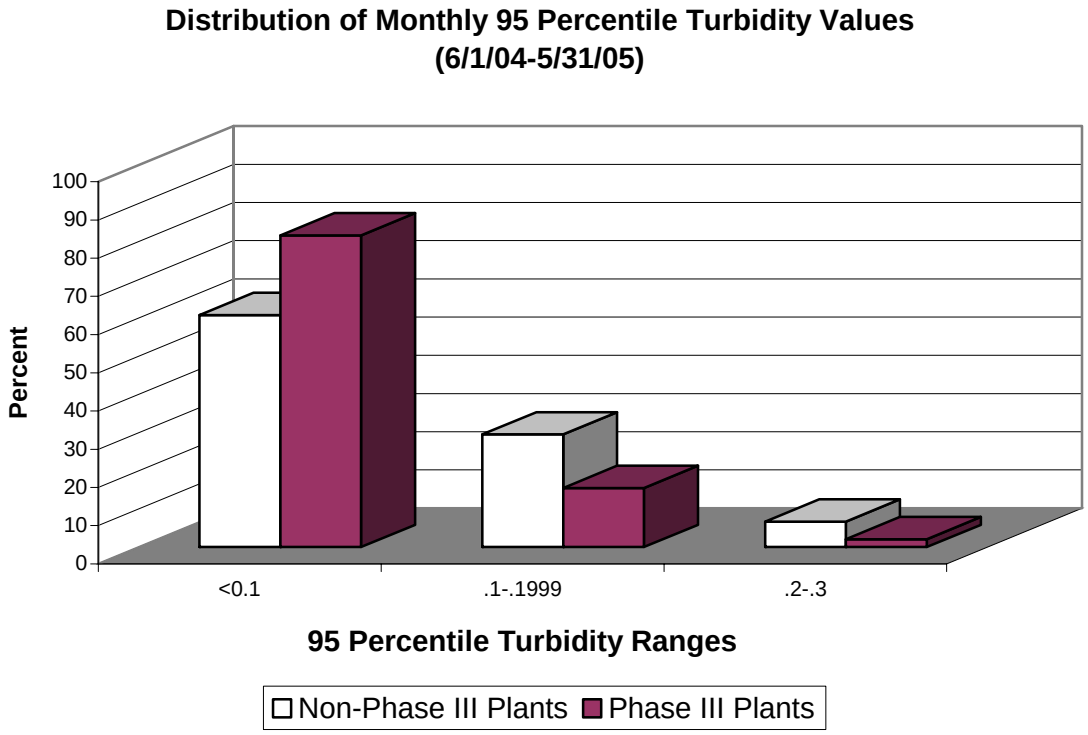

Figure 8

Summary

Several interesting results were identified in the data that have been submitted from *Partnership* utilities:

- More than 98% of the monthly 95th percentile turbidities reported by all the utility partners were less than 0.2 NTU.
- Treatment plants that have completed Phase III self-assessments have lowered finished water turbidity by more than **50%** (when comparing baseline to post-Phase III values). This result is even more impressive given that these plants were performing very well prior to beginning the self-assessment process.
- Plants that have completed Phase III reported more monthly 95th percentile values less than 0.10 NTU (approximately 30% more) when compared to non-Phase III plants.
- The majority of plants currently active in the *Partnership* are in Phase II of the program. A substantial number (approximately 40%) have reached Phase III.
- Fees assessed for participation fund the program. The fees are adequate to make the program self-sustaining provided that the utilities continue to participate.

Conclusion

The *Partnership for Safe Water* program has been effective in improving water quality for over 85 million people served by utilities participating in the program. This represents over 60% of the U.S. population served by surface water. Data submitted by participating utilities provides undeniable evidence that the program results in measurable treatment plant performance improvement. This improvement in water quality has a direct association with decreased risk from exposure to microbial disease.

The program has proven effective for all size utilities. Utilities serving more than 100,000 comprise slightly more than 50% of the membership. But there are a growing number of smaller utilities that serve less than 18,000. The results from all utilities are the same; as the participants progress through the program treatment plant performance improves.

Utilities participating in the program cite major benefits of the program as systematically improving water quality, enhancing operations staff responsibility, and providing a customer communication tool. The program is highly cost-effective. Customers served by *Partnership* utilities are paying less than ½¢ per year for a measurable improvement in their water quality. The *Partnership for Safe Water* continues to demonstrate the value of a voluntary program that affects water quality improvement.

Appendix A

Partnership for Safe Water Financial Report

In February of 1998 the *Partnership for Safe Water* Steering Committee established a fee-for-service for utilities participating in the program. The first annual fee was assessed in November 1998 for payment by February 1999. The intent of the assessment was to make the program self-sustaining. The 2006 budget estimate and 2005 actual expenses for the program are shown in the table below. Also, the funds collected from utility fees are allocated equally for each month from March 2005 through February 2006. The current level of funding is adequate to support the program.

Partnership for Safe Water
Financial Report (12/31/05)

Income	**2005 Actual (11/30/05)**	**2005 Budget Estimate**	**2006 Budget Estimate**
Subscriptions	195,142	190,000	200,000
Total	**195,142**	**190,000**	**200,000**
Direct Expenses			
Direct Salaries	54,923	70,800	68,400
Direct Benefits	14,388	23,200	22,400
Total Salaries*	**69,311**	**94,000**	**90,800**
Contractual	5,075	30,000	10,000
Telephone	1,629	2,000	3,000
Supplies	6,057	1,500	32,000‡
Rent-Facil.	0	0	0
Rent-Equipment	0	0	1,000
Postage	1,434	6,500	5,000
Promotion	405	6,000	0
Travel-Staff	2,120	2,000	4,500
Travel-Volunteer	3,729	0	0
Printing	0	3,000	3,000
Photo Copy	828	2,300	2,300
Production	0	5,000	4,000
Food & Bev.	3,066	3,000	3,500
Total Expenses	**24,343**	**61,300**	**68,300**
Total Direct Expenses	**93,654**	**155,300**	**159,100**
Indirect Expenses*			
Total Program	**78,405****	**94,700**	**88,160****
Net	**23,083****	**(60,000)**	**(47,260)****
AWWA Contribution**	**----------**	**60,000**	**47,260**

*Salaries are for AWWA staff to administer the program. Indirect expenses are those associated with program administration such as: computers, office expenses, accounting, legal, marketing and human resources support.
**AWWA has committed to allow the *Partnership* to apply 75% of the income to direct expenses. Therefore, the *Partnership* will be allocated the indirect expenses of no more than 25% of the income. AWWA is allocated the remainder and this amount is not charged to the program.
‡The expenses for promotion of the program are included in the supplies category rather than the promotion category.

There are several items in the financial report summary that need explanation. The actual expenditures for 2005 are shown through November since the year-end figures are not available until later in the year. The 2005 and 2006 budget estimate values reflect a full 12-month calendar year. Actual salary expenses were below expectations in 2005. Therefore, the budget for 2006 was adjusted lower. Revenue has remained steady for the last few years at about $200,000, so that value is shown in the 2006 budget estimate. Contractual expenses have fluctuated considerably for the last two years. This was due to expected charges for the development of the online course to gain CEU credit for *Partnership* utility employees. Most of these expenses were incurred in 2004 and, therefore, the 2005 budget estimate was higher than necessary. This value was adjusted downward for 2006. The budget estimate for the supplies category was increased considerably for 2006. This is an accounting adjustment moving amounts from other categories (contractual and promotion) at the request of the AWWA accountant.

Considering the total annual operating cost of approximately $200,000, this program has proven to be very cost-effective in providing measurable improvements in water quality affecting a large population.

The *Partnership for Safe Water* is primarily a program that is operated by volunteers. The six *Partnership* organizations all provide some degree of in-kind support to help keep the program affordable and increase the value to participants. For example, the U.S. EPA Office of Drinking Water Technical Support Center headquartered in Cincinnati, Ohio, provides major support to provide training to the volunteers.

Below is an estimate of the additional costs associated with all of the activities needed to support the *Partnership for Safe Water* above and beyond the operating expenses shown above. As a result of the in-kind support, utilities are receiving the benefits of a program for 73% less than the "true" costs.

Category	2005 Cost ($)
U.S. EPA Training & Support	7,500
PEAC Volunteers	70,000
Committee Volunteers	38,500
Partnership Organizations In-kind	30,000
Total	**146,000**

The *Partnership* volunteers play a big part in the success of the program. The members of the Steering Committee, the Program Coordinating Committee, and the PEAC provide many hours of their time to make the *Partnership for Safe Water* a successful and affordable program. The six *Partnership* organizations wish to thank all of the volunteers and their employers for the many hours of dedicated service.

Appendix B

Program Enhancement Efforts

The *Partnership* implemented a number of program features designed to enhance membership benefits.

- Press releases for award winning plants
- A communications kit for award winning utilities
- Press release to local media by AWWA
- Electronic *Partnership* logos (Official logo items available for purchase)
- Annual data summary report to compare plant performance with national trends
- AWWA Annual Conference award presentations
- Articles in AWWA publications to raise program visibility and provide recognition
- Ads placed in *U.S. Mayor* and *Nation's Cities Weekly* publications for award-winning utilities
- An online training course based on the *Partnership* that provides CEU credit for successful completion (reduced fee for operators from *Partnership* utilities)
- Recognition for award-winning utilities in AWWA Section publications

2005 Program Highlights

1. Awards were presented at the AWWA Annual Conference in San Francisco, California. Several plants received the Directors Award. Forty-seven plants were awarded the Five-Year Directors Award, and one plant received the Excellence in Water Treatment Award. In addition to being recognized at the conference, the plants were listed in a *MainStream* article and the names were provided to the news media.

2. The Pennsylvania Section of AWWA managed a program with support from the *Partnership*, to obtain CEU credit for operators for completion of Phase III from the Pennsylvania Department of Environmental Protection. Twenty CEU's are awarded if they receive a satisfactory score on an assessment examination. The *Partnership* is now providing the materials used to obtain CEU credit in Pennsylvania to other AWWA Sections so that they can duplicate this program.

3. An online web-based training course based on the *Partnership* data analysis process is now available to operators who receive CEU credits. This course is available to all operators; however, *Partnership* member plant staff can take the course for a greatly reduced fee. In this way, the course provides incentive for retention and progression of existing members as well as addition of new members.

The online web-based training course is titled "Using Turbidity Data to Optimize Plant Performance". This course uses the *Partnership* software and principles. Therefore, actively involved operators at *Partnership* plants should find the material very familiar. *Partnership* volunteers worked with the AWWA Training and Education Department in this effort. An experienced web-based development contractor formatted course content provided by the volunteers. The course is part of the AWWA Online Institute and thus is eligible for CEU credit in most States.

4. Articles recognizing the achievements of award-winning plants were placed in AWWA Section publications. This adds to the national recognition provided by the *Partnership.*

The *Partnership* program is being continually improved to provide the most benefit to all participating utilities. If you have any suggestions regarding program improvements contact any Steering Committee member or Bill Lauer by phone at 303-347-6220 or by email at blauer@awwa.org.

Appendix C

Active Award Winning Treatment Plants as of 12/31/05

Listed below are the active treatment plants that have earned awards from the *Partnership for Safe Water.* To remain active, plants must submit annual performance data and a narrative description of their activities to optimize the treatment plant. The *Partnership* Steering Committee congratulates these plants for their efforts and encourages each of the Directors Award plants to consider pursuing Phase IV of the program.

Five-Year Excellence in Water Treatment Award (Phase IV) Plant

The following plant has maintained the Excellence in Water Treatment Award for five consecutive years.

Vermont

Champlain Water District
Peter L. Jacob Water Treatment Facility

Excellence in Water Treatment Award (Phase IV) Plants

The following plants have earned the highest level of recognition from the *Partnership*.
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Illinois

Central Lake County Joint Action Water Agency
Paul M. Neal Water Treatment Plant

Utah

Central Utah Water Conservancy District
Utah Valley Water Treatment Plant

Vermont

Champlain Water District
Peter L. Jacob Water Treatment Facility

Five-Year Directors Award (Phase III) Plants

The following plants have maintained the Director's Award status for five years.

California

Alameda County Water District
Mission San Jose Water Treatment Plant
East Bay Municipal Utility District
Orinda Water Treatment Plant
Metropolitan Water District of Southern California
Robert A. Skinner Water Treatment Plant
San Francisco Public Utilities Commission
Sunol Valley Water Treatment Plant
Zone 7 Water Agency
Del Valle Water Treatment Plant

Colorado

City of Fort Collins Utilities
Fort Collins Water Treatment Plant

Connecticut

Aquarion Water Company of Connecticut
Easton Lake Water Treatment Plant
Connecticut Water Company
W. N. Mackenzie Water Treatment Plant
W. C. Stewart Water Treatment Plant

Georgia

Columbus Water Works
North Columbus Water Resource Facility
Douglasville – Douglas County Water & Sewer Authority
Bear Creek Water Treatment Plant

Illinois

Illinois American Water
Pontiac Division Water Treatment Plant
Streator Division Water Treatment Plant

Indiana

Fort Wayne City Utilities
Three Rivers Filtration Plant #1

Kentucky

Kentucky American Water
Kentucky River Station
Richmond Road Station
Louisville Water Company
B.E. Payne Water Treatment Plant
Crescent Hill Treatment Plant
Paducah Water Works
Paducah Water Works

Maine

Biddeford and Saco Water Co.
Biddeford and Saco Pumping Station

Michigan

City of Grand Rapids
Lake Michigan Filtration Plant
Detroit Water & Sewerage Dept.
Lake Huron Plant
Northeast Plant
Southwest Plant

Minnesota

Saint Paul Regional Water Services
McCarrons Filtration Plant

Missouri

City Utilities of Springfield
Blackman Water Treatment Facilities
Fulbright Water Treatment Plant

Montana

City of Billings Public Utilities Dept.
Gerald D. Underwood Water Treatment Plant

Nevada

Southern Nevada Water Authority/Las Vegas Valley Water District
Alfred Merritt Smith Water Treatment Facility

New Jersey

New Jersey American Water
Delaware River Regional Water Treatment Plant
Raritan Millstone Water Treatment Plant

New York

Onondaga County Water Authority
Marcellus Water Treatment Plant

Ohio

Cleveland Division of Water
Nottingham Filtration Plant

Oregon

City of The Dalles
Wicks Water Treatment Plant

Pennsylvania

City of Lancaster Authority
Conestoga Water Treatment Plant
Pennsylvania American Water
Aldrich Water Treatment Plant
Bangor Water Treatment Plant
Brownell Water Treatment Plant
Ceasetown Water Treatment Plant
Clarion Water Treatment Plant
Ellwood Water Treatment Plant
Fallbrook Water Treatment Plant
Forest City Water Treatment Plant
Gerald C. Smith Treatment Plant
Hays Mine Water Treatment Plant
Kittanning Water Treatment Plant
Milton Filter Plant
Montrose Treatment Plant
Nesbitt Treatment Plant
New Castle Treatment Plant
Oneida Valley Water Treatment Plant
Philipsburg Treatment Plant
Silver Spring Plant
Two Lick Creek Water Treatment Plant (Indiana)

Philadelphia Water Company
Baxter Water Treatment Plant
Belmont Water Treatment Plant
Queen Lane Water Treatment Plant

South Carolina

Georgetown County Water & Sewer District
Waccamaw Neck Water Treatment Plant
Grand Strand Water & Sewer Authority
Bull Creek Regional Surface Water Treatment Plant
Santee Cooper Regional Water System
Santee Cooper Regional Water System

Tennessee

Knoxville Utilities Board
Mark B. Whitaker Water Treatment Plant
Tennessee American Water
Citico Treatment Plant

Texas

City of Houston
East Water Purification Plant #1

Dallas Water Utilities
Bachman Water Treatment Plant
East Side Water Treatment Plant
Elm Fork Water Treatment Plant

Utah

Central Utah Water Conservancy District
Ashley Valley Water Treatment Plant
Duchesne Valley Water Treatment Plant
Utah Valley Water Treatment Plant
Metropolitan Water District of Salt Lake & Sandy
Little Cottonwood Water Treatment Plant
Salt Lake City Public Utilities
Big Cottonwood Treatment Plant
City Creek Treatment Plant
Parleys Water Treatment Facility

Vermont

Champlain Water District
Peter L. Jacob Water Treatment Facility

Virginia

Appomattox River Water Authority
Appomattox River Water Authority Water Treatment Plant
Chesterfield County Utilities Dept.
Addison-Evans Water Facility

Washington

City of Bellingham Dept. of Public Works
Whatcom Falls Water Treatment Plant
City of Everett Public Works Division
City of Everett Water Treatment Plant

West Virginia

West Virginia American Water
Huntington Water Treatment Plant

Wisconsin

Oak Creek Water and Sewer Utility
Oak Creek Water Treatment Plant

Directors Award (Phase III) Plants

The following utilities are current Partnership members and active in the program as of 12/31/05.

Alabama

Birmingham Water Works & Sewer Board
Putnam Filter Plant

California

Alameda County Water District
Mission San Jose Water Treatment Plant
Contra Costa Water District
Bollman Water Treatment Plant
Randall-Bold Water Treatment Plant
East Bay Municipal Utility District
Lafayette Water Treatment Plant
Orinda Water Treatment Plant
Sobrante Water Treatment Plant
Upper San Leandro Water Treatment Plant
Walnut Creek Water Treatment Plant
Metropolitan Water District of Southern California
Robert B. Diemer Filtration Plant
Joseph Jensen Filtration Plant
Henry J. Mills Filtration Plant
Robert A. Skinner Filtration Plant
F. E. Weymouth Filtration Plant
Modesto Irrigation District
Modesto Regional Water Treatment Plant
San Francisco Public Utilities Commission
Harry Tracy Water Treatment Plant
Sunol Valley Water Treatment Plant
Zone 7 Water Agency
Del Valle Water Treatment Plant

Colorado

City of Fort Collins Utilities
Fort Collins Water Treatment Plant
City of Golden
City of Golden Water Treatment Plant
Montezuma Water Company
Montezuma Water Treatment Plant
Ute Water Conservancy District
UWCD Water Treatment Plant

Connecticut

Aquarion Water Company of Connecticut
Easton Lake Water Treatment Plant
Mianus Filter Plant
Putnam Filter Plant
Connecticut Water Company
William Neal Mackenzie Water Treatment Plant
William C. Stewart Water Treatment Plant

Florida

City of Tampa Water Dept.
David L. Tippin Water Treatment Facility

Georgia

Columbus Water Works
North Columbus Water Resource Facility
Douglasville – Douglas County Water & Sewer Authority
Bear Creek Water Treatment Plant

Illinois

Central Lake County Joint Action Water Agency
Paul M. Neal Water Treatment Plant
Illinois American Water
Alton District Water Treatment Plant
Cairo District Water Treatment Plant
East St. Louis Water Treatment Plant
Granite City Water Treatment Plant
Peoria District – Illinois River Treatment Plant
Pontiac Division Water Treatment Plant
Streator Division Water Treatment Plant

Indiana

Fort Wayne City Utilities
Three Rivers Filtration Plant #1
Indiana American Water
Borman Park Water Treatment Facility
Kokomo Water Treatment Plant
Middle Fork Water Treatment Plant
Muncie-White River Water Treatment Plant
Ogden Dunes Water Treatment Plant
Richmond Main Station Water Treatment Plant

Iowa

Iowa American Water
East River Station Water Treatment Plant

Kentucky

Kentucky American Water
Kentucky River Station
Richmond Road Station

Louisville Water Company
B. E. Payne Water Treatment Plant
Crescent Hill Water Treatment Plant

Paducah Water Works
Paducah Water Works Treatment Plant

Louisiana

City of Bossier City
Bossier Water Treatment Plant

Maine

Biddeford and Saco Water Company
Biddeford and Saco Pumping Station

Michigan

City of Grand Rapids
Lake Michigan Filtration Plant

Detroit Water & Sewerage Dept.
Lake Huron Water Treatment Plant
Northeast Water Treatment Plant
Southwest Water Treatment Plant

Minnesota

Saint Paul Regional Water Services
McCarrons Filtration Plant

Missouri

City of St. Louis Public Utilities
Chain of Rocks Water Treatment Plant
Howard Bend Water Treatment Plant

City Utilities of Springfield
Blackman Water Treatment Facilities
Fulbright Water Treatment Plant

Missouri American Water
Central County Water Treatment Plant
Jefferson City Water Treatment Plant
Joplin Blendville Water Treatment Plant
Meramec Water Treatment Plant
North County Water Treatment Plant
South County Water Treatment Plant

Montana

City of Billings Public Utilities Dept.
Gerald D. Underwood Water Treatment Plant

Nevada

Southern Nevada Water Authority/Las Vegas Valley Water District
Alfred Merritt Smith Water Treatment Facility

New Hampshire

Manchester Water Works
Manchester Water Treatment Plant

New Jersey

New Jersey American Water
Canal Road Water Treatment Plant
Delaware River Regional Water Treatment Plant
Jumping Brook Water Treatment Plant
Raritan Millstone Water Treatment Plant

New York

City of Rochester Water & Lighting Bureau
Hemlock Water Filtration Plant

City of Troy Dept. of Public Utilities
John P. Buckley Water Treatment Plant

Onondaga County Water Authority
Marcellus Water Treatment Plant

North Carolina

Fayetteville Public Works Commission
Glenville Lake Water Treatment Facility
P. O. Hoffer Water Treatment Facility

Harnett County Dept. of Public Utilities
Harnett County Regional Water Treatment Plant

Orange Water and Sewer Authority
Jones Ferry Road Water Treatment Plant

Town of Cary Public Works & Utilities
Cary Apex Water Treatment Plant

Ohio

Cleveland Division of Water
Crown Filtration Plant
Garret A. Morgan Filtration Plant
Nottingham Filtration Plant

Ohio American Water
Ashtabula District Water Treatment Plant
Marion District Water Treatment Plant
Tiffin District Water Treatment Plant

Oregon

City of The Dalles
Wicks Water Treatment Plant

Pennsylvania

Blossburg Municipal Authority
Bellman Water Treatment Plant

Carlisle Borough Municipal Authority
Carlisle Water Treatment Plant

Chester Water Authority
Octoraro Water Treatment Plant

City of Lancaster
Conestoga Water Treatment Plant

Downingtown Municipal Water Authority
Downingtown Water Treatment Plant

East Greenville Borough Water Dept.
East Greenville Water Treatment Plant

Harrisburg Water System
Dr. Robert E. Young Water Service Center

Jersey Shore Area Joint Water Authority
Larry's Creek Filter Plant

North Penn and North Wales Water Authorities
Forest Park Water Treatment Plant

Oakmont Water Authority
Hulton Treatment Plant

Pennsylvania American Water
Aldrich Water Treatment Plant
Bangor Water Treatment Plant
Brownell Water Treatment Plant
Brownsville Water Treatment Plant
Ceasetown Water Treatment Plant
Clarion Water Treatment Plant
Crystal Lake Water Treatment Plant
Ellwood Water Treatment Plant
Fallbrook Water Treatment Plant
Forest City Water Treatment Plant
Gerald C. Smith Water Treatment Plant
Hays Mine Water Treatment Plant
Kane Water Treatment Plant
Kittanning Water Treatment Plant
Lake Scranton Water Treatment Plant
Milton Filter Plant
Montrose Water Treatment Plant
Nesbitt Water Treatment Plant
New Castle Water Treatment Plant
Norristown Water Treatment Plant
Oneida Valley Water Treatment Plant (Butler)
Philipsburg Water Treatment Plant
Punxsutawney Water Treatment Plant
Silver Spring Water Treatment Plant
Susquehanna Water Purification Plant
Two Lick Creek Treatment Plant (Indiana)
Watres Water Treatment Plant
White Deer Creek Water Treatment Plant
Yellow Breeches Plant #1
Yellow Breeches Plant #2

Philadelphia Water Department
Baxter Water Treatment Plant
Belmont Water Treatment Plant
Queen Lane Water Treatment Plant

Schuylkill County Municipal Authority
Mount Laurel Filtration Plant

Shenandoah Municipal Water Authority
Shenandoah Water Treatment Plant

Stroudsburg Municipal Authority
Stroudsburg Water Treatment Plant

South Carolina

Beaufort-Jasper Water and Sewer Authority
Chelsea Water Treatment Plant

Charleston Commissioners of Public Works
Hanahan Water Treatment Plant

City of Newberry
George H. Connelly Water Treatment Plant

Georgetown County Water & Sewer District
Waccamaw Neck Regional Water Treatment Plant

Grand Strand Water & Sewer Authority
Bull Creek Regional Water Treatment Plant

Greenwood Commissioners of Public Works
W. R. Wise Water Treatment Plant

Santee Cooper Regional Water System
Santee Cooper Regional Water Treatment Plant

Spartanburg Water System
R. B. Simms Water Treatment Plant

Tennessee

Knoxville Utilities Board
Mark B. Whitaker Water Treatment Plant

Sevierville Water System
Sevierville Water Treatment Plant

Tennessee American Water
Citico Treatment Plant

Texas

American Water Services
Southeast Water Purification Plant

City of Houston
East Water Purification Plant #1
East Water Purification Plant #3

Dallas Water Utilities
Bachman Water Treatment Plant
East Side Water Treatment Plant
Elm Fork Water Treatment Plant

El Paso Water Utilities Public Services Board
Jonathan W. Rogers Water Treatment Plant
Robertson/Umbenhauer Water Treatment Plants

Utah

Central Utah Water Conservancy District
Ashley Valley Water Treatment Plant
Duchesne Valley Water Treatment Plant
Utah Valley Water Treatment Plant
Metropolitan Water District of Salt Lake & Sandy
Little Cottonwood Water Treatment Plant
Salt Lake City Public Utilities
Big Cottonwood Water Treatment Plant
City Creek Water Treatment Plant
Parley's Water Treatment Plant

Vermont

Burlington Public Works Water Division
Francis J. O'Brien Water Treatment Facility
Champlain Water District
Peter L. Jacob Water Treatment Facility

Virginia

Appomattox River Water Authority
Appomattox River Water Authority Water Treatment Plant
Chesterfield County Utilities Dept.
Addison – Evans Water Facility
Washington County Service Authority
Middle Fork Water Treatment Plant

Washington

City of Bellingham Dept. of Public Works
Whatcom Falls Water Treatment Plant
City of Everett Public Works Division
City of Everett Water Treatment Plant

West Virginia

West Virginia American Water
Ada Water Treatment Plant
Bluestone Water Treatment Plant
Gassaway Water Treatment Plant
Huntington Water Treatment Plant
West Fork Regional Water Treatment Plant

Wisconsin

Oak Creek Water and Sewer Utility
Oak Creek Water Treatment Plant