

# **The Report to the Governor on the Efficacy of Georgia's Capacity Development Program**



**Georgia Environmental Protection Division**  
Watershed Protection Branch  
Drinking Water Program  
September 2011

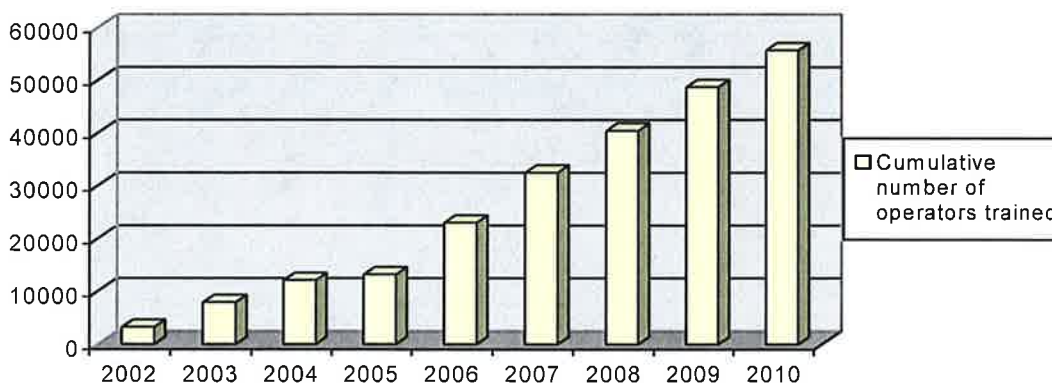
## EXECUTIVE SUMMARY

This report is prepared to outline the progress that is being made in the implementation of Georgia's capacity development program. Georgia's Environmental Protection Division (EPD) has an established program that provides a solid foundation for present and future activities to help insure all Georgians are provided safe and reliable drinking water on a continuous basis. Overall, the quality of drinking water served to the citizens of Georgia is very good. Compliance with the health-related drinking water standards remains high.

Currently, Georgia has approximately 2,484 active public water systems serving a population of approximately 8.4 million people. This means approximately 87% of the more than 9.7 million citizens get their drinking water from one of the regulated public water systems in the State. The rest obtain water from their privately owned water sources, such as wells and springs located on their properties.

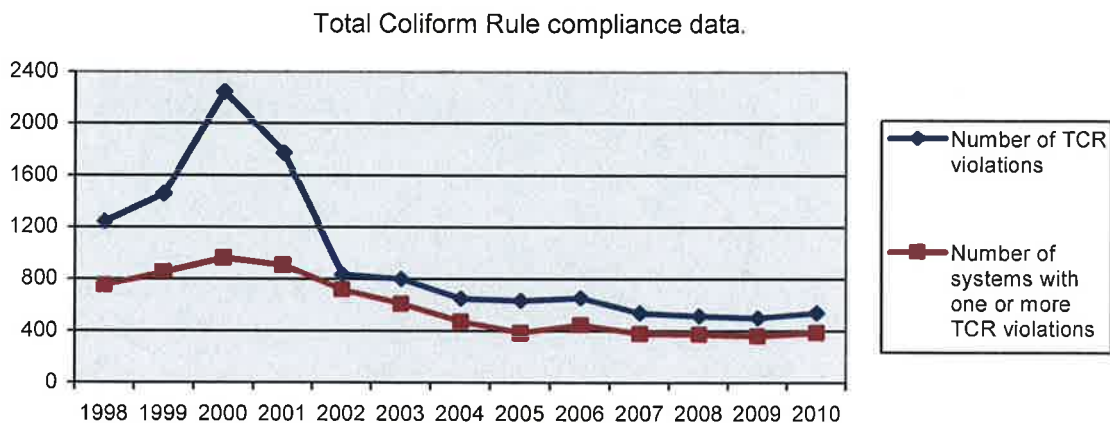
Approximately, 66% of all public water systems in the State are privately owned and operated. Federal, State, and local governments own the rest. Unfortunately, the smaller privately owned and operated water supply systems do not have the resources available to the larger systems. These small privately owned water systems face many challenges and often struggle to comply with the safe drinking water rules and regulations. In Georgia, as well as other parts of the country, these small private water systems continue to have greater frequency and occurrence of compliance violations. In order to improve their status, continuous efforts are being made towards the education, training and certification of the owners and operators of these smaller water systems (refer to chart below). The Georgia Rural Water Association, Georgia Association of Water Professionals, and Georgia Environmental Finance Authority partner with EPD in this widespread effort and play very significant roles. We are getting good results.

Cumulative number of operators trained by reporting year.



The U.S. Environmental Protection Agency (USEPA) approved Georgia's capacity development strategy program on September 21, 2000. Since then, significant progress has been made towards improving the technical, managerial, and financial capacity of the public water systems in Georgia. New public water systems are being designed and constructed to meet more stringent standards for quality and reliability, and new owners are required to demonstrate adequate managerial and financial capacity through submission of business plans prior to commencing operation of a public water system.

Recently, Georgia has seen an overall decrease in the number of new public water systems becoming significant non-compliers (SNCs) with the federal drinking water rules and regulation. According to our records, none of the new water systems approved or permitted during the last year was classified as a SNC by USEPA (refer to Attachment A). For the three-year reporting period from July 1, 2007 to June 30, 2010, 17 of the total 104 new CWS and NTNCWS were classified as SNCs by USEPA at some point during the last three years (refer to Attachment A). These new public water systems became SNCs mainly due to failure to comply with the consumer confidence report (CCR) requirements and lead and copper initial tap monitoring. The available data suggests that the capacity development authority program is having a positive affect.



Since 2000, there has been significant improvement in the overall microbial quality of the drinking water being provided to the public. Available data indicate that the total number of Total Coliform Rule (TCR) violations have decreased over time and remained fairly constant since 2004 (refer to figure above). We attribute this success to improved water system operation and management as a result of increased efforts towards training water utility managers and personnel in drinking water regulations, monitoring and reporting requirements, and etc.

Improving the TMF capacity of water systems is a gradual, long-term process. Over the next several years, as a result of capacity development efforts, we expect the success to continue. As detailed in the report, under the various capacity development strategy efforts, all public water systems in Georgia are being offered or provided assistance to help them acquire and maintain technical, managerial, and financial capacity. The assistance includes, but is not limited to, technical engineering review of all water system projects, direct on-site technical assistance, in depth sanitary surveys and more frequent inspections, proactive compliance and enforcement initiatives, inexpensive and convenient training opportunities, low interest financing to correct system deficiencies, affordable monitoring and testing services, and other local government initiatives. Whenever possible, deficient or poorly run public water systems are being encouraged, through various compliance and enforcement mechanisms, to consolidate or merge with nearby governmentally owned and operated water systems or water authorities.

The Georgia Environmental Finance Authority is the primary State agency for assisting local governments in financing the construction, extension, rehabilitation, repair and replacement of environmental facilities, as well as other security improvements. Georgia utilizes a large portion of the grant to provide low interest loans to eligible public water systems needing infrastructure

improvements to achieve or maintain compliance with the SDWA requirements or to protect public health. From July 1, 1997 to June 30, 2010, more than \$253 million in project assistance has been awarded to 133 water systems for various improvement projects, benefiting approximately 2.9 million citizens in Georgia.

While EPD has the lead role and regulatory authority for the capacity development program, this agency cannot be able to fully achieve the goals of the program without the active ongoing involvement of our various stakeholder and partner organizations. These organizations, as mentioned throughout the report, have played a major role in the capacity development program and contributed immeasurably to the success that has been achieved so far. In the future, EPD will continue to evaluate the success of the capacity development program, maximize the use of all available resources to help the systems most in need, and maintain effective working relationships with other State and local agencies and organizations.

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## **LIST OF ABBREVIATIONS**

GA SDWA	Georgia Safe Drinking Water Act of 1977
Minimum Standards	Minimum Standards for Public Water Systems, May 2000
O & M Plan	Operations & Maintenance Plan
Rules	Rules for Safe Drinking Water, Chapter 391-3-5
The Campaign	The Georgia Water Management Campaign

## **LIST OF ACRONYMS**

ACCG	Association County Commissioners of Georgia
ARC	Atlanta Regional Commission
CCR	Consumer Confidence Report
CWS	Community Water System
DNR	Georgia Department of Natural Resources
DWP	Drinking Water Program (of the Department of Natural Resources, Environmental Protection Division)
DWPEP	Drinking Water Permitting & Engineering Program (of the Department of Natural Resources, Environmental Protection Division)
DWSRF	Drinking Water State Revolving Fund
EPD	Georgia Environmental Protection Division (of the Georgia Department of Natural Resources)
GEFA	Georgia Environmental Finance Authority
GMA	Georgia Municipal Association
GWAP	Georgia Association of Water Professionals (previously known as GWPCA)
GWPCA	Georgia Water & Pollution Control Association
GRWA	Georgia Rural Water Association
GWWI	Georgia Water & Wastewater Institute
MCL	Maximum Contaminant Level
NOV	Notice of Violation
NPDWR	National Primary Drinking Water Regulation
NTNCWS	Non-Transient Non-Community Water System
PPG	Performance Partnership Grant
PWS	Public Water System
RDC	Regional Development Center
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SMP	Scheduled Maintenance Plan
SNC	Significant Non-Compliance
SOP	Standard Operating Procedure
SWAP	Source Water Assessment Program
TMF	Technical, Managerial and Financial
TNCWS	Transient Non-Community Water System
USEPA	U.S. Environmental Protection Agency
WSID	Water System Identification Number

## INTRODUCTION

The 1996 Safe Drinking Water Act (SDWA) Amendments emphasized prevention and assistance to resolve significant problems small public water systems were having providing safe and reliable drinking water to their customers. The legislation included incentives, in the form of Drinking Water State Revolving Fund (DWSRF) withholdings, for States to develop:

- (1) A capacity development authority program to ensure that all new community water systems (CWS) and non-transient non-community water systems (NTNCWS) commencing operation after October 1, 1999, demonstrate adequate technical, managerial, and financial (TMF) capacity to comply with all National Primary Drinking Water Regulations (NPDWRs); and
- (2) A capacity development strategy to assist all existing public water systems in acquiring and maintaining TMF capacity.

The Environmental Protection Division (EPD) has established a capacity development strategy program for Georgia. USEPA approved Georgia's program on September 21, 2000. Since then, EPD has fully and successfully implemented the strategy, which provides targeted, voluntary, and mandatory assistance to public water systems in need of acquiring and maintaining adequate TMF capacity.

Since January 1, 1998 several new rules became effective relative to the permitting of new privately owned public water systems. These include, but are not limited to, requirements for the following: development of a "business plan"; execution of a trust indenture; development of a back-up water source; connection to an existing local government owned system when feasible; and, concurrence from the nearest governmental entity for the development of the privately owned CWS in that jurisdiction. The main objective of these requirements is to assure that new CWS and NTNCWS have adequate TMF capacity to comply with all current and future drinking water regulations and provide safe, reliable service to their customers.

The information provided in this report shows that a substantial amount of activity and workload has been associated with both the capacity development authority program (new water systems) and capacity development strategy program (existing water systems). Measurements of success of the strategy and the improvement in the TMF capacity of public water systems include, but are not limited to, the following: SNC lists, TCR compliance data, the number of business plans developed by public water systems, the attendance at operator training sessions and certification examinations, the number of "circuit-rider" type technical assistance visits, the consolidation of private public water systems with local governmental entities, and etc. This report clearly demonstrates that the Georgia EPD is making significant progress towards improving the TMF capacity of public water systems throughout the State.

## THIS REPORT

The Governor's Report on the Efficacy of Georgia's Capacity Development Program follows the reporting criterion that has been recommended by the USEPA. The report addresses both the "New Systems Program" and the "Existing Systems Strategy" and covers a period of several years. Emphasis was placed on the current reporting period from July 1, 2007 to June 30, 2010; however, historical data was included, where appropriate, to establish baselines from which to measure success of the capacity development program and to highlight improvements to the technical, managerial, and financial capacity of public water systems in the State.



## GENERAL INFORMATION

The Safe Drinking Water Act (SDWA), as amended in 1996, brings significant improvements to the national drinking water program. Capacity development is an important component of the Act's focus on preventing problems in drinking water. The capacity development provisions offer a framework within which States and water systems work together to ensure that systems acquire and maintain the TMF capacity needed to achieve the public health protection objectives of the SDWA.

**What is water system capacity?** Water system capacity is the ability to plan for, achieve, and maintain compliance with applicable drinking water standards. Capacity has three components: technical, managerial, and financial. Adequate capability in all three areas is necessary for a system to have "capacity."

**What is water system capacity development?** Capacity development is the process of water systems acquiring and maintaining adequate technical, managerial, and financial capabilities to enable them to consistently provide safe drinking water. The Safe Drinking Water Act's capacity development provisions provide a framework for the States and the water systems to work together to ensure that public water systems acquire and maintain the technical, managerial, and financial capacity needed to meet the Act's public health protection objectives.

**What is public water system (PWS)?** A public water system is a "system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year." Currently, there are about 2,484 PWSs in Georgia that serve approximately 8.4 million people. This category includes CWSs, NTNCWSs, and TNCWSs. Some of these PWSs are very small. Approximately 76% of the PWSs in Georgia serve populations less than 500 people.

**What is a community water system (CWS)?** A community water system is a "public water system" which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents." Currently, there are about 1,778 CWSs in Georgia that serve more than 8.3 million people.

**What is a non-transient non-community water system (NTNCWS)?** A non-transient non-community water system is "a public water system that is not a community water system" and that regularly serves at least 25 of the same persons over 6 months per year." NTNCWSs are generally commercial or institutional establishments having their own water supply, which serves 25 or more of the same people on a regular basis. Examples include schools, factories, office and industrial parks, and major shopping centers. In Georgia, there are 209 NTNCWSs that serve a total population of 65,784 people.

**What is a transient, non-community water system (TNCWS)?** A transient, non-community water system is a "non-community water system" that does not regularly serve at least 25 of the same persons over six months per year." TNCWSs are generally commercial or not-for-profit establishments having their own water supply, which serves 25 or more people per day, but not the same people on a regular basis. Examples include restaurants, roadside stops, campgrounds, and hotels. In Georgia, there are approximately 497 TNCWSs serving a total population of 81,886 people. Almost all of them are groundwater systems and most of them are privately owned and operated.

**What is technical capacity?** Technical capacity is the physical and operational ability of a water system to meet Safe Drinking Water Act requirements. Technical capacity refers to the physical infrastructure of the water system, including the quality and quantity of the source water and the adequacy of treatment, storage, and distribution infrastructure. It also refers to the ability of system personnel to adequately operate and maintain the system and to otherwise implement requisite technical knowledge.

**What is managerial capacity?** Managerial capacity is the ability of a water system to conduct its affairs in a manner enabling the system to achieve and maintain compliance with Safe Drinking Water Act requirements. Managerial capacity refers to the system's institutional and administrative capabilities. Managerial capacity can be assessed through key issues and questions, including:

**What is financial capacity?** Financial capacity is a water system's ability to acquire and manage sufficient financial resources to allow the system to achieve and maintain compliance with Safe Drinking Water Act requirements.

**How are technical, managerial, and financial capacity related?** Many aspects of water system operations involve more than one kind of capacity. Infrastructure replacement or improvement, for example, requires technical knowledge, management planning and oversight, and financial resources. A deficiency in any one area could disrupt the entire effort.

## BACKGROUND

For the reporting period ending June 30, 2010, the State of Georgia had approximately 2,484 active PWS serving a population over 8.4 million people. Based on the latest census figures, this means approximately 87% of the citizens get their drinking water from one of the regulated public water systems in the State. The remainder obtain water from privately owned water sources.

Specifically, there are 109 water production systems that use surface water or Groundwater Under the Direct Influence (GWUDI) of surface water as their sources of water supply. After these systems treat the water, they distribute it directly to their own customers and also sell it to an additional 123 other communities for distribution. Together, these 232 systems that depend upon surface water or GWUDI supplies provide drinking water to approximately 6.7 million of the State's population. The other 2,252 water systems mainly use groundwater sources (wells and springs) as their water supplies to serve approximately 1.7 million citizens.

Community water systems in Georgia.

Source Type	Number of Systems	Cumulative Population Served
Ground Water Under Influence	3	97129
Purchased Ground Water Under Influence	1	13260
Ground Water	1547	1622901
Purchased Ground Water	7	6754
Surface Water	105	4970354
Purchased Surface Water	115	1574176
<b>TOTAL</b>	<b>1778</b>	<b>8284574</b>

Approximately 72% (1,778 out of the total 2,484 public water systems) provide water to residential customers. These systems are referred to as CWSs and serve at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents daily at least 60 days out of the year. Approximately 13% (224 out of the total 1,778 community water systems) are supplied by surface water sources and the remaining 87% (1,554 CWSs) are served by groundwater sources.

Non-transient non-community water systems in Georgia.

Source Type	Number of Systems	Cumulative Population Served
Ground Water Under Influence	1	75
Ground Water	492	81063
Purchased Surface Water	4	748
<b>TOTAL</b>	<b>497</b>	<b>81886</b>

In addition, there are 209 NTNCWSs that regularly serves at least 25 of the same persons over 6 months per year. Examples of these systems are hospitals, day care centers, major shopping centers, children's homes, institutions, factories, office and industrial parks, schools, and etc. Furthermore, there are 497 TNCWSs that do not regularly serve at least 25 of the same persons

over six months per year, such as restaurants, highway rest areas, campgrounds, roadside stops, and hotels. With the exception of 5 NTNCWS and 5 TNCWS that use surface water supplies, all of the NTNCWSs and the TNCWSs use primarily groundwater sources for their drinking water needs.

Transient non-community water systems in Georgia.

<b>Source Type</b>	<b>Number of Systems</b>	<b>Cumulative Population Served</b>
Ground Water	204	63628
Surface Water	2	826
Purchased Surface Water	3	1330
TOTAL	209	65784

## CAPACITY DEVELOPMENT AUTHORITY

Georgia's capacity development authority program to ensure that all new CWSs and NTNCWSs demonstrate adequate TMF capacity for compliance with the NPDWRs began on October 1, 1999. There are two major control points included in the authority program: (1) technical review and approval of proposed public water systems prior to construction; and, (2) issuance of a Permit to Operate a Public Water System. An important part of the capacity development authority program is the requirement that the owner submit a multi-year "business plan", which adequately demonstrates the water system's managerial and financial capacity to comply with all drinking water regulations in effect, or likely to be in effect.

Since adoption in the 1970s, the Georgia Rules for Safe Drinking Water, Chapter 391-3-5, have required privately owned CWSs to provide a mechanism to assure the continuity of service, such as a third party trustee. In some cases, CWS owners have entered into trust agreements with the local government in which the system is located. In other cases, the owners have used non-government trustees.

Since January 1, 1998 several new rules became effective relative to the permitting of new privately owned public water systems. These include, but are not limited to, requirements for the following: development of a "business plan"; execution of a trust indenture; development of a back-up water source; connection to an existing local government owned system when feasible; and, concurrence from the nearest governmental entity for the development of the privately owned CWS within the jurisdiction. The main objective of these requirements is to assure that new CWS and NTNCWS have adequate TMF capacity to comply with all current and future drinking water regulations and provide safe, reliable service to their customers.

**CONTROL POINTS:** As stated above, EPD has two control points in ensuring that new CWSs and NTNCWSs demonstrate adequate TMF prior to commencing operation. The first control point is the requirement for any person to obtain EPD's approval before constructing a public water system [Section 391-3-5-.04 (1) of the Rules for Safe Drinking Water]. EPD's Drinking Water Permitting & Engineering Program (DWPEP) is responsible for the review and approval of proposed surface public water supply systems. This includes all required engineering documentation such as engineering reports, plans and specifications, drinking water source quantity and quality data, business plans, local government concurrence and all pertinent data required for issuance of a permit to operate a public water system. The information that a person must submit to EPD for review and approval and for issuance of a permit to operate is discussed in the EPD's "Minimum Standards for Public Water Systems" (Minimum Standards). The requirements also include submittal of a multi-year "business plans".

Any person who desires to develop a public water system is required to first evaluate connecting to an existing governmentally owned public water system if one is available within one mile or less of the proposed system. If connection to a governmentally owned system is demonstrated to not be available or feasible, then the requirements outlined in the Minimum Standards must be satisfied. Failure to submit all of the required information for obtaining EPD's approval to construct a public water system will result in EPD stopping its review and returning the project to the owner unapproved. In order for the project to be reconsidered for approval, the owner must resubmit the project with all required supporting information.

The second control point is the requirement for any person who owns or operates a public water system or desires to commence operation of a public water system to obtain a permit from the Director of EPD. The Drinking Water Permitting & Engineering Program will not prepare the operating permit for issuance by the Director of EPD until the owner/operator has satisfied all

requirements outlined in the Rules and Minimum Standards necessary to demonstrate adequate TMF capacity. Should an applicant for a permit refuse to provide the required documentation, the Director will deny the Permit to Operate a Public Water System.

Under Georgia’s capacity development authority program, local governments have been delegated the responsibility of deciding how water and wastewater services will be provided in each service area. Before any person may initiate construction of a new privately owned and operated water system, that person must receive concurrence for the project from the local government within its jurisdiction. In addition, the person must first evaluate connecting to an existing governmentally owned public water system if one is available within one mile or less. Next, plans and specifications, prepared by a professional engineer licensed to practice in the State of Georgia, must be submitted to EPD for review and approval. The design and construction must conform to the minimum acceptable design criteria published in Georgia EPD’s “Minimum Standards for Public Water Systems.”

An important part of the capacity development authority program is the requirement that the owner submit a multi-year business plan to demonstrate adequate managerial and financial capacity to comply with the existing and future National Primary Drinking Water Regulations. This document should be submitted along with the plans and specifications. EPD has successfully implemented this aspect of the new systems program as detailed by the following:

- During the reporting period from July 1, 2007 to June 30, 2010, a total of 130 business plans were received from 115 new and 15 existing public water systems.
- As of June 30, 2010, a total of 694 business plans have been received from new and existing public water systems.
- As of June 30, 2010, 58 surface water or GWUDI systems have submitted detailed O&M Plans. Only four of these O&M Plans were submitted during this reporting period.

The table below displays similar information for the period from July 1, 2003 to June 30, 2010.

	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>
New Water Systems	56	24	59	64	26	50	37	28
Business Plans Submitted	107	63	99	55	53	48	40	42
Cumulative Business Plans	294	357	456	511	564	612	652	694

Prior to issuance of a permit, the owner of a privately owned community water system must also provide an executed “trust indenture” or other legal document to assure the continuity of operation and maintenance of the water system. All proposed public water systems must also demonstrate that a “certified operator” is available to operate and maintain the water system. The Director will issue no permit until the new water system owner/operator has satisfied all of the requirements in the Rules for Safe Drinking Water and “Minimum Standards for Public Water Systems.”

The State of Georgia’s legal authority to implement the new systems program has not changed within this reporting period. Furthermore, there have not been any changes, revisions or modifications to the State’s control points (review and approval of proposed public water systems prior to construction and the issuance of an Permit to Operate a Public Water System).

No water systems that have adequately demonstrated technical, managerial and financial capacity have been denied approval and an operating permit by EPD.

EPD's decision to place engineering positions in the District Offices has enabled the technical staff to visit and inspect the new water systems while they are under construction, prior to permitting, or soon after commencing operation in an effort to minimize early violations and other compliance problems. Currently, EPD has engineering positions in the Albany, Athens, Augusta, Brunswick, Macon, and Cartersville Mountain District Offices. These engineers continue to review plans and specifications, provide and offer technical assistance, perform sanitary surveys, conduct inspections, and approve business plans and O & M Manuals, all in an effort to help ensure small groundwater public water systems acquire and maintain adequate technical, managerial and financial capacity.

Fiscal Year	Number of SNCs	SNCs due to MCL	SNCs due to M/R
2001	139	9	130
2002	63	10	53
2003	128	3	125
2004	269	4	265
2005	62	6	56
2006	57	10	47
2007	128	8	120
2008	121	9	112
2009	83	17	66
2010	180	13	167

During the period from July 1, 2007 to June 30, 2010 approximately 6,961 water system projects for new and expanding public water systems were reviewed and approved under EPD's regulatory authority, which includes the delegation of authority program. The projects included, but were not limited to, the design and construction of new water source facilities (intakes, wells, and purchased water connections), water treatment plants (surface water and ground water facilities), finished water storage tanks, pumping facilities, water plant sludge/waste handling and disposal facilities, and water main additions and extensions to existing water distribution systems.

**SYSTEMS WITH A HISTORY OF SIGNIFICANT NON-COMPLIANCE (SNC):** In regards to capacity development, a water system with a history of Significant Non-Compliance (SNC) is defined as a community water system or a non-transient non-community water system which has been a SNC in at least three quarters during the last three years.

As seen in the table below, the majority of SNCs are due to monitoring and reporting violations. Very few of the SNCs are a result of Maximum Contaminant Level (MCL) violations, which pose an immediate threat to public health.

During this reporting period, a total of 384 systems have been identified as SNCs. Only 39 (10%) of the SNCs were due to MCL violations. The other 345 SNCs were mainly due to monitoring and reporting and CCR violations. As is the case nationally, very small public water systems accounted for a disproportionate number of the SNCs.

Each year, SNCs account for approximately 5% of the total inventory of public water systems. EPD's diligent efforts to assist public water systems in developing and maintaining technical, managerial and financial capacity is helping to minimize the number of SNCs.

In its capacity development strategy, Georgia utilizes compliance rates to establish a baseline and measure improvement in the technical, managerial and financial capacity of water systems. In addition to the data on historical SNCs, EPD tracks the total number of Total Coliform Rule (TCR) violations and the number of systems with these violations. TCR violations are often a

result of a failure to monitor or report, collect and have analyzed the correct number of samples, or perform the required repeat testing. These types of violations can be minimized through capacity development efforts that improve operations and management, such as education, operator training, technical assistance, and compliance and enforcement initiatives. By tracking violations of the TCR only, the compliance data will not be affected by new regulations and should be more indicative of improvements made towards helping water systems comply with the National Primary Drinking Water Regulations.

For the TCR, an MCL is exceeded if any of the following apply: more than one sample tests positive for total coliform (for systems collecting less than 40 routine samples per month); more than 5% of the samples test positive for total coliform (for systems collecting 40 or more routine samples per month); any repeat sample is positive for fecal coliform or *E. Coli*; or a routine sample which is positive for fecal coliform or *E. Coli* is followed by a positive total coliform sample. It is important to note that any system with a positive for fecal coliform or *E. Coli* must notify EPD immediately and appropriate measures must be taken to protect public health, such as issuing Boil Water Advisories. The MCL violations, although very serious, are generally brief in duration and quickly resolved by EPD and the water system.

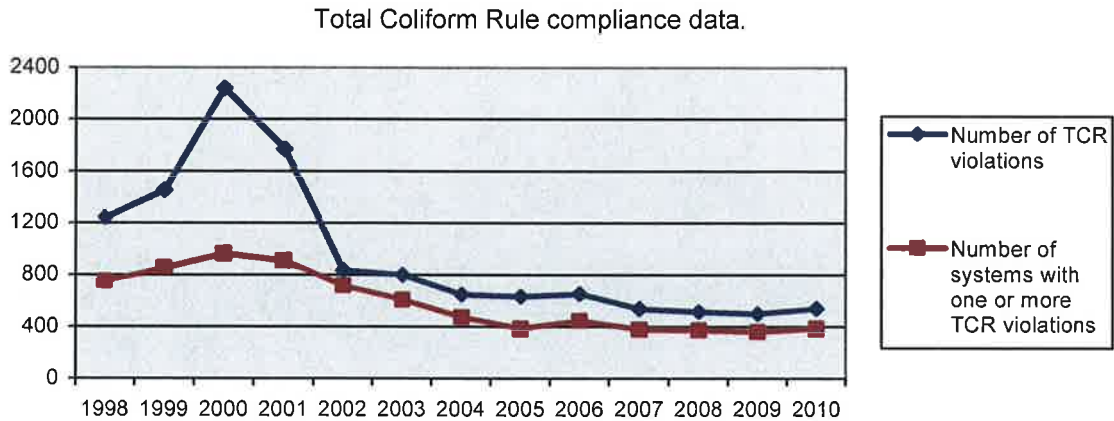
The table below displays the compliance data for the TCR and indicates that, in any given year, an average of 588 water systems incurred an average of 955 TCR violations during the period from FY 1998 through FY 2010. The data is shown graphically on the next page. An average of 98 systems had an MCL exceedance.

Fiscal Year	Number of TCR violations			Number of Systems with One or More TCR Violations		
	Total	MCL	Non-MCL	Total	MCL	Non-MCL
1998	1247	228	1019	753	160	593
1999	1461	151	1310	858	111	747
2000	2242	197	2045	968	117	851
2001	1775	155	1620	913	121	792
2002	839	135	704	722	108	514
2003	803	135	668	610	112	498
2004	651	98	553	476	80	396
2005	637	99	538	390	83	334
2006	657	129	528	448	102	371
2007	542	92	450	381	72	326
2008	520	83	437	376	68	327
2009	503	79	424	363	59	333
2010	545	82	463	392	76	327
Average	955	128	828	588	98	493

The data show that significant achievement has been made in compliance with the Total Coliform Rule. The total number of systems with TCR violations has steadily decreased from a peak of 968 in FY2000 to 392 for FY2010. Likewise, the total number of violations due to MCL exceedances has also decreased from 197 to 82 during the same time period. This decrease can be attributed to the EPD's continued efforts in the capacity development and operator certification programs.



During the most recent year from July 1, 2009 to June 30, 2010, the data in the above table further indicates that 392 of the total 2,484 public water systems (15.8%) have one or more TCR violation(s). Only 76 water systems (3.1%) had a TCR violation resulting from an MCL exceedance. Most violations are non-MCL related violations.



**EVALUATING PROGRAM SUCCESS:** EPD will continue to evaluate program success by comparing the Safe Drinking Water Act compliance record of new public water systems with the compliance record of systems constructed before the new regulatory requirements and procedures went into effect.