Pennsylvania Public Water System Compliance Report for 2023

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1. Introduction to Pennsylvania's Safe Drinking Water Program

Section 1414(C)(3)(A)(i) of the amended federal Safe Drinking Water Act (SDWA) requires States with primacy to prepare and submit to the U.S. Environmental Protection Agency (EPA) an annual report on public water system (PWS) violations. This report fulfills that requirement by providing a summary of the incidence of Pennsylvania public water system (PWS) maximum contaminant level (MCL), maximum residual disinfectant level (MRDL), significant monitoring/reporting (M/R), treatment technique (TT), consumer confidence report rule (CCR), and public notification (PN) violations for the calendar year 2021. The level of compliance and efforts being undertaken to provide safe drinking water to the residents and travelers of Pennsylvania are also highlighted. The full report is available on the Department of Environmental Protection (DEP) web site and in hard copy. See the last page of this report for details on how to obtain additional information.

Public Water System Definitions

Bottled Water System: A PWS which provides water for bottling in sealed bottles or other sealed containers.

Bulk Water Hauling System: A PWS which provides water piped into a carrier vehicle and withdrawn by a similar means into the user's storage facility or vessel.

BVRB Water System: A Bottled, Vended, Retail or Bulk Public Water System

Community Water System (CWS): A PWS that provides water to the same population year-round. Examples are municipal systems, authorities, and mobile home parks or residential developments with their own water supplies.

- **Large CWS** - Serves greater than 50,000 people.
- **Medium CWS** - Serves 3,301 - 50,000 people.
- **Small CWS** - Serves 3,300 or fewer people.

Consecutive Water System: A public water system which obtains all of its water from another public water system and resells the water to a person, provides treatment to meet a primary MCL, MRDL or treatment technique or provides drinking water to an interstate carrier. The term does not include bottled water and bulk water systems.

Nontransient Noncommunity Water System (NTNCWS): A PWS that is not a CWS, but that regularly serves at least 25 of the same people at least six months of the year. Examples include schools, factories, and hospitals that have their own water supplies.

Public Water System (PWS): A system that provides piped water for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. PWSs can be community, nontransient noncommunity, or transient noncommunity systems.

Retail Water Facility: A PWS which provides water for bottling without the use of a water vending machine by dispensing unit servings of water in containers whether or not the containers are provided by the customers.

Transient Noncommunity Water System (TNCWS): A system that caters to transitory customers in non-residential areas such as campgrounds, motels, and restaurants having their own water supplies.

Vended Water System: A PWS which provides water for bottling through the use of one or more water vending machines.

Background

Under the authority of the 1974 Safe Drinking Water Act (SDWA), the EPA established the Public Water System Supervision (PWSS) Program. With the 1986 Amendments to the SDWA, EPA set national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as maximum contaminant levels (MCLs). For some regulations, EPA established a treatment technique in lieu of an MCL to control unacceptable levels of contaminants in drinking water. The Agency's regulations also establish how often public water systems monitor their water for contaminants and report the monitoring results to the states or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting requirements. In addition, EPA requires some/certain PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires public water systems to notify the public when they have violated these regulations. The 1996 amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects; steps that the public water system is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

Drinking water first came under regulation in Pennsylvania in 1905 with the passage of the Public Water Supply Law. The 1905 law was passed in response to widespread disease outbreaks that had been attributed to microbiological contamination of public water supplies. Approximately 1,200 systems were regulated under the law for about 20 contaminants for which the U.S. Public Health Service had established drinking water standards. Public water supplies were regulated under the 1905 law for almost 80 years when a new wave of waterborne disease outbreaks necessitated the establishment of better authorities to protect public health.

The SDWA allows states and territories to seek EPA approval (primacy) to administer their own PWSS programs. The Pennsylvania Safe Drinking Water Act was signed into law in 1984 after several communities experienced waterborne disease outbreaks caused by the presence of Giardia in their drinking water. In the following year Pennsylvania was awarded primacy under the SDWA. The DEP's Bureau of Safe Drinking Water administers the PWSS program. Under the 1905 Public Water Supply Law, Pennsylvania led the nation in waterborne disease outbreaks, averaging eight to ten per year. Today, DEP regulates nearly 8,400 public water systems serving over eleven million people. Through improved water quality regulation under the 1984 Act, waterborne disease outbreaks are now a very rare occurrence in Pennsylvania's public water systems.

In addition to this report, DEP prepares a separate semi-annual report on the financial, technical and educational assistance programs for Pennsylvania's water systems. These reporting requirements are part of DEP's work plan obligations under the set-aside grant for the drinking water program.

Sources of Drinking Water Contamination

Contaminants may enter drinking water before, during, or after treatment. The majority of PWSs treat their water, as necessary, to ensure that their customers receive water that meets drinking water standards. Some sources of drinking water contaminants are as follows:

Before Treatment

- Bacteria, viruses and protozoa from human or animal sources
- Turbidity in water caused by suspended matter such as clay, silt, and microscopic organisms
- Inadequately treated wastewater, sanitary sewer overflows, and leaking sewer lines, malfunctioning septic systems
- Defective storage tanks
- Leaking hazardous landfills, ponds, and pits
- Pesticides, fertilizers, and other agricultural run-off
- Run-off from oil-slicked or salt-treated highways
- Underground injection of hazardous wastes
- Underground storage tanks
- Naturally-occurring metals such as arsenic and cadmium
- Decay products of naturally-occurring radionuclides such as radon, radium, and uranium
- Industrial chemicals such as solvents

During Treatment

- Treatment malfunction or chemical overfeed
- By-products of disinfectants such as trihalomethanes and haloacetic acids

After Treatment

- Lead, copper, asbestos, and other materials from corroding pipes
- Microbes and sediment entering through leaking pipes, joints and valves, or water line breaks
- Improper connections with other systems or cross-connections with non-potable water that allow contaminants to enter drinking water pipes
- Permeation of contaminants through certain pipe materials
- Microbes and other contaminants entering through or accumulating within inadequately operated or maintained storage tanks
- Disinfection byproducts, depleted disinfectant residuals, microbial re-growth, biofilm growth, or nitrification from inadequate operation or maintenance of distribution systems

Improved Public Health Protection

The reduction in waterborne disease outbreaks in Pennsylvania over the last 33 years is due in part to Pennsylvania's filtration requirements. On March 25, 1989, when the Commonwealth of Pennsylvania adopted the filtration regulations, 231 public water systems were using unfiltered surface water sources. These systems ultimately filtered or abandoned the sources. Filtration plants have been constructed for nearly all of the state's unfiltered surface water sources. Currently, only 5 unfiltered surface and groundwater under the direct influence of surface water (GUDI) systems remain, the number of surface and GUDI filtration plants in Pennsylvania is now 333. Pennsylvanians benefit from the improved public health protection provided by these filtration plants. The Surface Water Treatment Rule has been revised several times to increase public health protection. Most recently, the General Update and Fees Rule strengthened the treatment technique requirements for pathogens, clarified permitting requirements, expanded filter bed evaluation program requirements and added new requirements for filter plant alarms and shutdown capabilities. These new requirements are being implemented to increase the public's protection from diseases associated with viruses, bacteria and protozoa in drinking water.

To assure that Pennsylvania's filtration plants maximize public health protection for their customers, DEP initiated the Filter Plant Performance Evaluation Program in 1988. DEP is also helping to prevent waterborne diseases through the Partnership for Safe Water Program and the Area Wide Optimization Program. These programs are a cooperative effort between DEP and plant personnel to assure workers optimize the inactivation and removal of disease-causing organisms at their facilities.

In 2018, DEP further strengthened microbial protection by promulgating the Disinfection Requirements Rule (DRR). The DRR protects public health through a multiple barrier approach designed to guard against microbial contamination by ensuring the adequacy of treatment designed to inactivate microbial pathogens and by ensuring the integrity of drinking water distribution systems. The DRR requires CT/log inactivation monitoring and reporting at all filter plants and includes strengthened disinfection requirements within the distribution system by requiring a minimum residual of 0.2 mg/L throughout the distribution system, development of a DRR sampling plan, and development of a nitrification control plan for systems using chloramines.

In addition to these special efforts to improve the microbiological safety of drinking water, DEP currently regulates 97 primary contaminants and 15 secondary contaminants – an increase from about 20 in 1984. Current regulations are set for 16 inorganic contaminants, 5 radionuclides, turbidity, 8 microbial contaminants or indicator organisms, 3 disinfectants, 11 disinfection byproducts and 53 organic contaminants. Primary maximum contaminant levels (MCLs) have been set for 87 contaminants, secondary MCLs have been set for 15 contaminants and 10 contaminants have treatment technique requirements. See Chapter 2 for additional information.

Waterborne Disease Outbreaks

The Pennsylvania DEP has the responsibility of assuring that the drinking water industry delivers a safe and reliable supply of water to consumers through efficiently and effectively operated facilities. Water systems that derive some or all of their drinking water from surface water sources (including GUDIs) serve over 10 million Pennsylvanians as well as millions of visitors to the state. Pennsylvania has a tremendous interest in the potential for waterborne diseases related to public water supplies. Between 1971 and 1980, Pennsylvania reported 20 percent of all waterborne outbreaks in the United States – more than any other state in the nation. These outbreaks had widespread health implications and cost families, businesses and local/state governments millions of dollars. Decades ago, the more significant outbreaks took place among communities that were served unfiltered surface or GUDI source water. Coinciding with the adoption of Pennsylvania's mandatory surface water filtration regulation, the number of reported waterborne disease outbreaks started to trend on a steep decline. According to the Pennsylvania Department of Health, no waterborne disease outbreaks related to public drinking water supplies were reported in Pennsylvania during the period of 2007 through 2009.

However, since 2010 there is a new trend in reported outbreaks. CDC's outbreak reporting system known as NORS (National Outbreak Reporting System) was launched in 2009 as a web-based platform into which health departments enter outbreak information. Through NORS, CDC collects reports of enteric disease outbreaks caused by bacterial, viral, parasitic, chemical, toxin, and unknown agents, as well as waterborne outbreaks of non-enteric disease. This transition into electronic disease reporting of waterborne outbreaks took place 2009/2010 and has increased recognition and detailed reporting of waterborne outbreaks when they occur in the state. Since the transition to NORS, reports of legionella pneumophila outbreaks have become a regular occurrence nearly every single year.

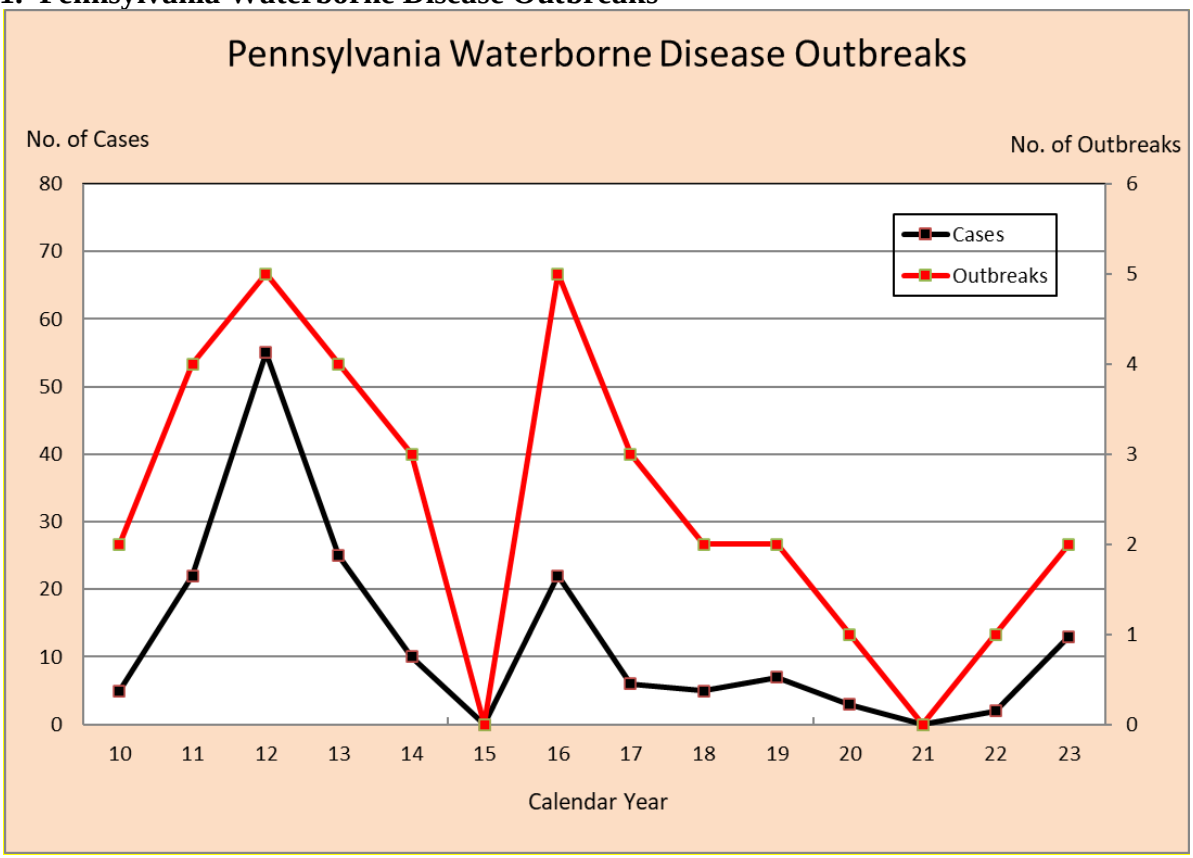
During 2023 there were 2 outbreaks reported that were potentially related to a public water supply, but not all outbreaks are recognized, investigated and then reported to state or federal agencies. The Pennsylvania Department of Health provides DEP with current information on waterborne disease outbreaks. The sensitivity of the disease surveillance system is affected by the following factors: the size of the outbreak; severity of disease caused by the outbreak; public awareness of the outbreak; routine laboratory testing for organisms; requirements for reporting cases of diseases; and resources available to the local health departments for surveillance and investigation of probable outbreaks. Thus, the surveillance system likely underreports the true number of outbreaks due to these factors. With the help of local public health agencies, DEP and the Pennsylvania Department of Health are continuing to improve the state's disease detection, investigation and reporting system. Additional details regarding the 2023 outbreaks are shown below:

Outbreak ID: xxxxx
Date the first case became ill: 4/21/2023
The Pathogen/Organism: Legionella
Number of Cases: 10
Number of Hospitalizations: 2
Number of Deaths: 0
Location/Address of Outbreak: 309 Wilson Ave, Hanover, PA 17331
Mode of Transmission: Waterborne/Nosocomial
Public Water Supply Name: Unknown
Name of Facility (if outbreak occurred at a facility served by the public water supplier): Hampton Inn
Underlying Deficiency (untreated groundwater, distribution system, etc.): Unknown

Outbreak ID: xxxxx
Date the first case became ill: 7/26/2023
The Pathogen/Organism: Legionella
Number of Cases: 3
Number of Hospitalizations: 1
Number of Deaths: 0
Location/Address of Outbreak: 625 E King St, Lancaster, PA 17602
Mode of Transmission: Waterborne/Nosocomial
Public Water Supply Name: Lancaster City Water Department
Name of Facility (if outbreak occurred at a facility served by the public water supplier): Lancaster County Prison
Underlying Deficiency (untreated groundwater, distribution system, etc.): Unknown, likely associated with aging infrastructure

The following graph in Figure 1. shows the occurrence of waterborne disease outbreaks in Pennsylvania since 2010 that were caused by viruses, bacteria and protozoa—the three main culprits in disease outbreaks. These outbreaks are largely the result of the reporting of legionella pneumophila outbreaks. Although legionella pneumophila outbreaks likely occurred prior to 2010, public water supplies were not reported as being the probable source. Other factors contributing to the recent increase in cases might include a true increase in disease transmission, greater use of diagnostic testing, and/or increased reporting. Waterborne disease outbreaks related to non-potable sources such as swimming and bathing facilities are not included in this graph.

Figure 1. Pennsylvania Waterborne Disease Outbreaks



Reducing Lead in Drinking Water

Under the Lead and Copper Rule (LCR), DEP is working with water systems to reduce lead levels that may be caused by the distribution system and household plumbing fixtures by requiring treatment to address the corrosiveness of the water. The LCR also requires water systems with treatment that continue to exceed lead levels take steps to replace lead service lines.

Additionally, DEP has been implementing a surveillance program under the Pennsylvania Plumbing System Lead Ban and Notification Act (Lead Ban Act) since 1991. Under this legislative initiative, materials not meeting the definition of "lead-free" are banned from sale or use in all plumbing systems in Pennsylvania. Additionally, the Lead Ban Act prohibits the sale or use of 50/50 and 85/15 tin-lead acid core or solid wire solders, any leaded solder that does not have a label which includes the content of lead and any leaded solder that does not contain a warning statement on the label. The Lead Ban Act also restricts the use of all other leaded solders to non-plumbing uses.

Lead Ban surveillance activities have been done throughout the Commonwealth for almost 30 years. The annual surveillance is the most effective method of educating the business community about the requirements of the Lead Ban Act. These surveillance activities include locating hardware stores, home centers, and other retail facilities in which solder is sold and educating these facilities (as well as solder wholesalers and manufacturers) of the provisions of the Lead Ban Act. In the mid 2000's, surveillance activities were expanded to also include electronics, craft and auto parts stores that sell solder. There has been a significant reduction of the availability of banned solder (and in the number of facilities out of compliance) as a result of this effort because the majority of stores in violation of the Lead Ban Act are first time offenders.

Details of the 2023 Lead Ban Surveillance Project include:

- 230 stores were surveyed; of these, 177 sell solder.
- 82 of the 177 stores (46%) sell only lead-free solder;
- 21 of the stores surveyed (12%) were in violation of the PA Lead Ban Act;
- 5 were selling banned solder; and
- 15 were selling restricted solder in the plumbing section; and
- 1 was selling both banned solder and restricted solder in the plumbing section.

Monitoring/Reporting Requirements

All public water systems are required to supply drinking water that complies with the primary and secondary MCLs. However, monitoring and reporting (M/R) requirements are specific to each system type. All public water systems, at a minimum, conduct routine monitoring for total coliform bacteria, nitrate and nitrite and if using a surface water source, conduct monitoring for other microbiological contaminants. In addition, CWSs and NTNCWSs conduct routine monitoring for other chemicals and radiological contaminants. DEP may require any public water system to conduct additional monitoring if DEP has reason to believe that the public water system is not in compliance with the MCLs, MRDLs, or treatment technique requirements.

In addition to MCL, MRDL, and TT violations, this Annual Compliance Report summarizes the number of *significant* M/R violations that occurred during the report year. For this report, significant M/R violations are generally defined as having taken no samples or no results were submitted during a compliance period for a particular contaminant. For the Surface Water Treatment Rule, a significant M/R violation occurs when fewer than 90% of the required samples are taken or no results are reported during a reporting interval.

Variances and Exemptions

Variances and exemptions to specific requirements under the Safe Drinking Water Act may be granted under certain circumstances. Occasionally, a public water system cannot meet the MCL due to the characteristics of the raw water sources, and no alternate sources are reasonably available. In such cases, a primacy state can grant the public water system a variance from the applicable primary drinking water regulation upon finding that the system has installed and is using the best available technology, treatment techniques, or other means which the EPA Administrator finds are available (cost is not a consideration in Pennsylvania). The state must find that the variance will not result in an unreasonable risk to health, and shall prescribe at the time the variance is granted a schedule in accordance with which the public water system must come into compliance with the MCL. In 2023, DEP received no new applications for a variance or exemption. There were no variances or exemptions in effect for any Pennsylvania public water systems during the 2023 report period.

Consumer Confidence Reports

To ensure that customers are aware of the quality of the drinking water supplied to them, community water systems are required to prepare an annual Consumer Confidence Report (CCR). The CCR covering calendar year 2023 isdue by July 1, 2024. Details about CCR violations may be found in Figure 14. of this report. DEP continues to work with water suppliers to improve the timeliness and quality of CCRs.

Public Notification

Public water systems are required to issue public notification (PN) to their consumers in response to a violation of an MCL, MRDL or TT requirement; for monitoring/reporting violations and for other emergency situations. Public notices must contain minimum elements, including a description of the violation, actions consumers should take and when the supplier expects to return to compliance. A system can incur a PN violation for failure to issue a complete notice that is delivered on time and in a manner appropriate to the violation/situation. In 2023, there were 8,577 PN violations. Charts and tables in following sections of this report show the PN violation count by the rule violated.

Regulation Development

DEP continues to provide training, outreach and compliance assistance for all existing safe drinking water rules. In 2023, DEP finalized a regulation that established the first state-specific MCLs for two per-and polyfluoroalkyl substances (PFAS) in the PFAS MCL Rule: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). The PFAS MCL Rule established MCL and MCL Goals and added provisions for demonstrating compliance with the MCLs, including monitoring and reporting requirements, analytical methods, acceptable treatment technologies, and public notification. Initial monitoring for affected water systems begins in 2024 or 2025 based on the population served.

The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) is a direct federal implementation rule that establishes a monitoring program to gather occurrence data on unregulated contaminants. UCMR 5 was published in the Federal Register on December 27, 2021 and requires assessment monitoring for a list of 29 PFAS and lithium. Monitoring is required for all CWS and NTNCWS serving 3,300 or more people, contingent on available funding. Monitoring is also required at a nationally representative subset of 800 CWSs and NTNCWSs serving less than 3,300 people. Public water systems will conduct monitoring between 2023 and 2025 using analytical methods developed by EPA and consensus organizations. This monitoring provides a basis for future regulatory actions to protect public health. In Pennsylvania, a total of 396 public water systems are likely to participate in UCMR 5 monitoring: 148 water systems serving more than 10,000 persons are required to monitor; 211 water systems serving 3,300 to 10,000 persons may be required to conduct monitoring if there is available federal funding; and 37 very small water systems serving less than 3,300 persons will be required to conduct monitoring.

2. Public Water System Profile and Compliance Summary

The following pages display some fundamental Pennsylvania public water system statistics, a table of the incidence of MCL, MRDL, TT, and significant monitoring violations and graphics to illustrate the general picture of public water system compliance in Pennsylvania in 2023.

Data in the federal Safe Drinking Water Information System (SDWIS) may differ from the information in this report. The 2023 report data originates in the Pennsylvania Drinking Water Information System (PADWIS) from a snapshot dated May 15, 2023.

DEP transmits the violation data from PADWIS to SDWIS several times a year. As a result, PADWIS and SDWIS may not match if the data extracts occurred on different dates. DEP is confident in the accuracy of the fundamental statistics for the incidence of MCL, MRDL, TT, and significant monitoring violations; and the general picture of public water system compliance in Pennsylvania.

General Statistics

- Total Population of Pennsylvania: 12,961,683
- Percent of Population Served by Individual Wells: 12%
- Percent of Population Served by Community Water Systems: 88%
- Greater than 90% of 104 drainage basins in Pennsylvania are used as sources for public water systems. Major river basins include the Delaware, Susquehanna, Potomac and Ohio.
- 478 ground water basins are located in Pennsylvania.
- 88% of the CWS population is covered by source water protection programs
- 96% of all CWS ground water sources have had a Surface Water Identification Protocol (SWIP) evaluation.*
- 2 confirmed waterborne disease outbreak occurred during 2023.
- 1,976 inspections (sanitary surveys) were performed.
- 99.95% of the population served by CWSs with surface-water sources or ground water under the direct influence of surface water receives filtered water.*
- 171 water plants participated in the Area-Wide Optimization Program (AWOP) in 2023 by submitting their turbidity data using WebOAS.
- 77% (based on 134 out of 173) of WebOAS users (filter plants) met the annual combined filter effluent optimization goal of <0.10 NTU in 95% of daily maximum turbidity samples.
- 28 filter plants received a 2023 AWOP Award.
- 93 filter plants were evaluated during CY 2023.
- 100% of all PWSs in PA were ranked and scored based on their system capability.
- 94.% of the population served by CWSs is protected by optimized corrosion control.*
- 87.5% of all children at day-care and school facilities that have their own water supply are protected by optimized corrosion control treatment.*
- Over 99.9% of the population served by CWSs is protected from nitrate/nitrite. *
- Over 99% of the population of CWSs is protected from carcinogenic contaminants. *

* Statistics compiled in June 2024

Compliance Action Summary

Action	Number
Compliance Notices and NOVs	13,051
Consent & Administrative Orders	509
Consent Assessments	2
Boil Water Advisories (Community Systems)	0
Boil Water Advisories (Noncommunity Systems)	13
Civil Penalties Collected	$41,238

This year, compliance actions in the table above are counted only once for each contaminant group for a public water system on a given date.

PWS Profile

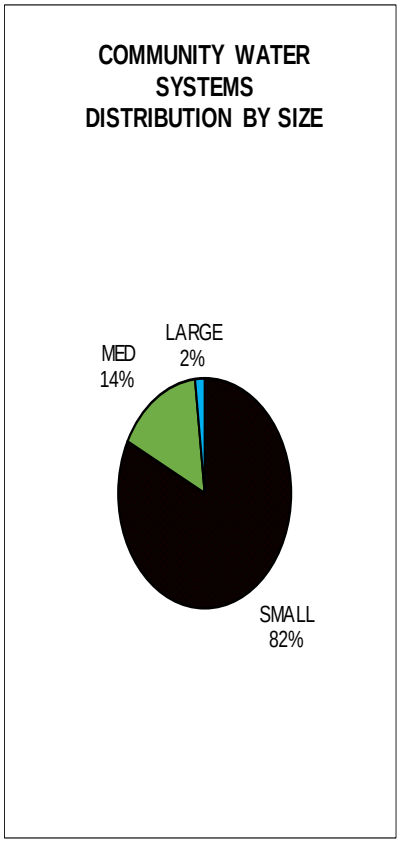
Figure 2. Number of Pennsylvania Systems and Population Served by Size Category

NUMBER OF PWSs

	CWS	NTNC	TNC	BVRB
SMALL	1,564	1,100	4,915	126
MEDIUM	299	21	3	37
LARGE	34	0	0	0
TOTAL	1,897	1,121	4,918	163

POPULATION SERVED

	CWS	NTNC	TNC	BVRB
SMALL	918,912	371,084	682,212	11,489
MEDIUM	3,906,924	147,729	11,600	176,100
LARGE	6,626,328	0	0	0
TOTAL	11,452,164	518,813	693,812	187,589



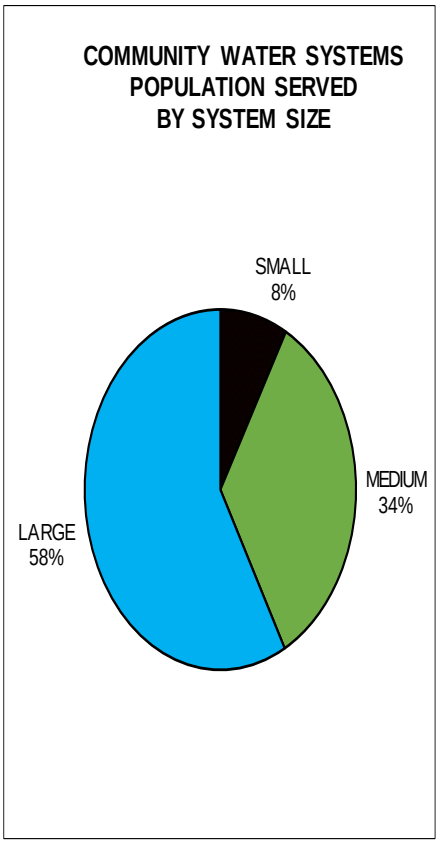


Figure 3. PWSs by Source and System Type

PWSs BY SOURCE AND SYSTEM TYPE

	CWS		NTNC		TNC		BVRB		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
GROUND	1,434	75.6%	1,080	96.3%	4,902	99.7%	68	41.7%	7,484	92.4%
SURFACE	463	24.4%	41	3.7%	16	0.3%	95	58.3%	615	7.6%
TOTAL	1,897	100.0%	1,121	100.0%	4,918	100.0%	163	100.0%	8,099	100.0%

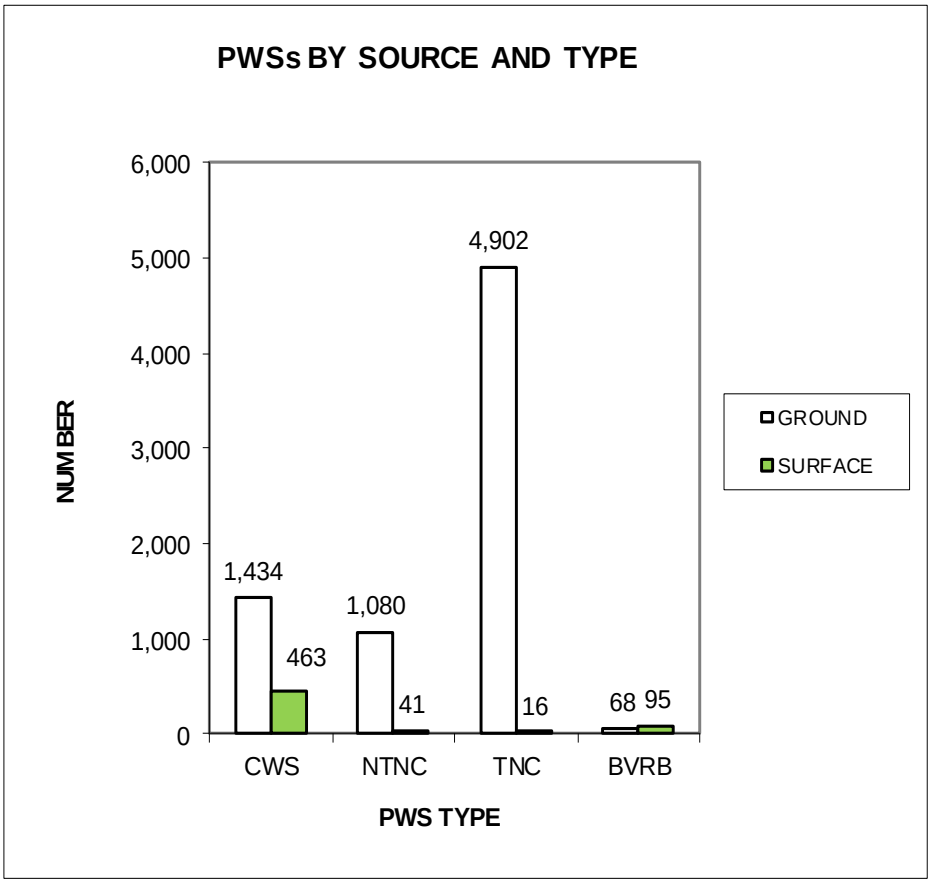
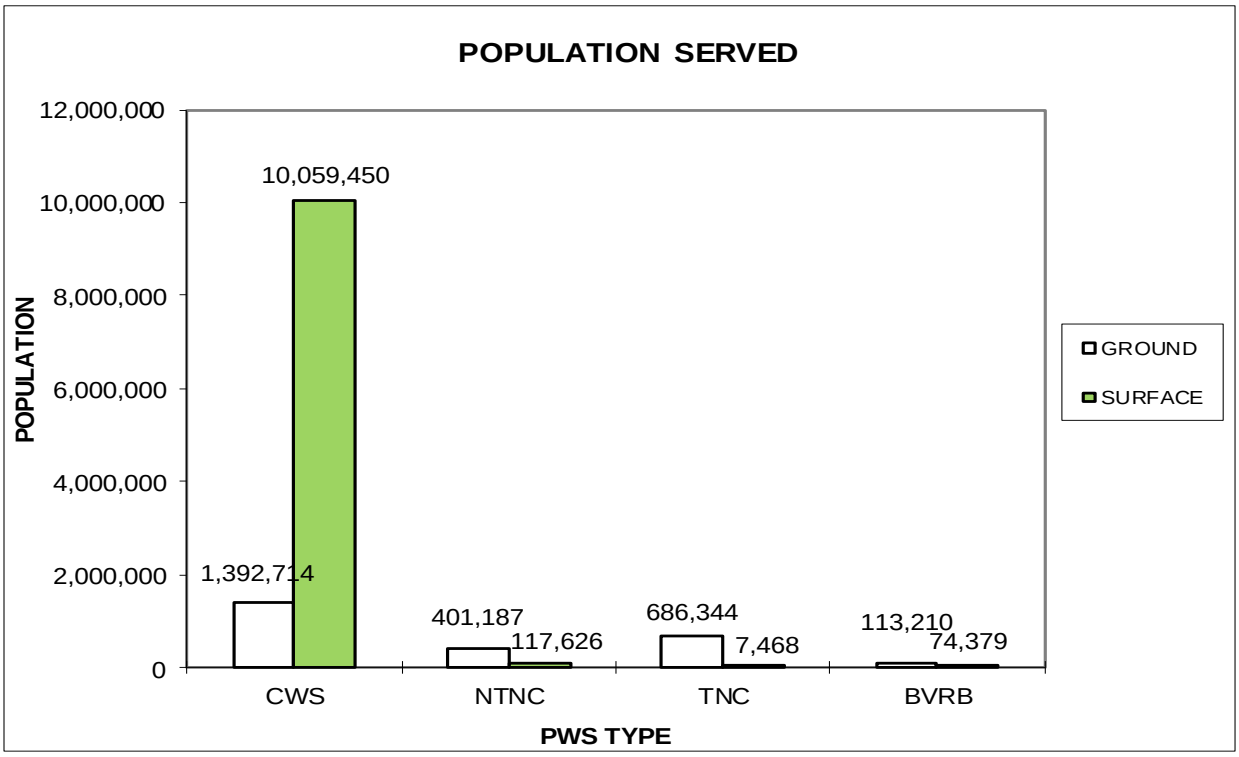


Figure 4. Population Served by Source Type

POPULATION SERVED BY SOURCE AND SYSTEM TYPE

	CWS		NTNC		TNC		BVRB		TOTAL	
	POPL SERVED	%	POPL SERVED	%	POPL SERVED	%	POPL SERVED	%	POPL SERVED	%
GROUND	1,392,714	12.2%	401,187	77.3%	686,344	98.9%	113,210	60.4%	2,593,455	20.2%
SURFACE	10,059,450	87.8%	117,626	22.7%	7,468	1.1%	74,379	39.6%	10,258,923	79.8%
TOTAL	11,452,164	100.0%	518,813	100.0%	693,812	100.0%	187,589	100.0%	12,852,378	100.0%



Summary of Violations

Definitions The following definitions apply to the Summary of Violations table.

Consumer Confidence Reports (CCR): Community water systems must prepare annual water quality reports (CCRs or drinking water quality reports) for their customers. The first reports were due by October 1999. Subsequent reports are due each year by July 1. The reports tell where drinking water comes from, what has been detected in the water, and how consumers can help protect their source of water. Violations associated with CCRs are for late or missing reports, incomplete reports and missing certification forms. [40 CFR 141.151]

Filtered Systems: Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

Ground Water Rule (GWR): The GWR provides increased protection against microbial pathogens, specifically viral and bacterial pathogens, in public water systems that use ground water sources. The goal of the GWR is to identify and target ground water systems that are susceptible to fecal contamination because such contamination is the likely source of viral and bacterial pathogens in drinking water supplies. [40 CFR 141.400]

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 16 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule (LCR): This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level and can enter drinking water from corrosion of household pipes and plumbing fixtures. Pennsylvania reports violations of the LCR in the following six categories:

Consumer Tap Notice: A violation for a system's failure to issue a notice about the results to each consumer whose tap is sampled for compliance monitoring.

Initial lead and copper tap M/R: A violation where a system did not meet initial lead and copper testing requirements or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: A violation where a system did not meet follow-up or routine lead and copper tap testing requirements or failed to report the results.

Treatment installation: Violations for a failure to install optimal corrosion control treatment system or source water treatment system which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in both categories].

Lead service line replacement: A violation for a system's failure to replace lead service lines on the schedule required by the regulation.

Public education: A violation where a system that exceeded the lead action level did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Maximum Residual Disinfectant Level (MRDL): The maximum permissible level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. MRDLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: EPA specifies which water testing methods the water systems must use and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken, or no results are reported during a compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 10% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 53 organic contaminants that are to be reported [40 CFR 141.61].

Per-and Polyfluoroalkyl Substances: Per- and polyfluoroalkyl substances (PFAS) are a class of synthetic chemicals that have been manufactured and in use since the 1940s. PFAS are known for their unique properties that make products resistant to water, grease, and stains; reduce friction; and resist heat. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) are the two PFAS currently regulated in Pennsylvania.

Public Notification Rule: The PN Rule establishes criteria under which public water systems must issue notification to all consumes about violations that have occurred. The rule specifies specific content and delivery requirements and deadlines. PN violations occur when the public water system fails to issue a notice, the notice is incomplete or the certification that the notice was delivered is not submitted.

Radionuclides: Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on five radionuclides: gross alpha, radium-226, radium-228, uranium and beta particle/photon radioactivity [40 CFR 141].

Violations for these contaminants are to be reported using the following four categories:

Gross alpha: A running annual average value for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined radium-226 and radium-228: A running annual average value for combined radium from these two isotopes above MCL of 5 pCi/L.

Uranium: A running annual average value for alpha radiation above MCL of 30 ug/L.

Gross beta: A running annual average value for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

Reporting Interval: Annual Compliance Reports are to be submitted to EPA by July 1 for the preceding calendar year.

Stage 1 and Stage 2 Disinfectants/ Disinfection Byproducts Rules (DBPR): The Stage 1 and Stage 2 DBPRs apply to community water systems and non-transient non-community systems that add a chemical disinfectant or oxidant to the drinking water during any part of the treatment process. Violations of the Stage 1 and Stage 2 DBPRs are reported for the following categories: M/R, MCL and MRDL.

Surface Water Treatment Rule (SWTR): The SWTR establishes criteria under which water systems supplied by surface-water sources, or ground-water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. The rule was amended in 2001 to include the Interim Enhanced SWTR requirements for surface water and GUDI systems serving at least 10,000 people. The rule was further amended in 2002 to include the Long Term 1 Enhanced SWTR requirements for surface water and GUDI systems serving less than 10,000 people. The rule was further amended in 2006 to include the Long Term 2 Enhanced SWTR requirements t to increase the public's protection from diseases associated with Cryptosporidium and other disease-causing microorganisms in drinking water. Violations of the SWTR (labeled "Filter Rule" in Figures 10, 15, and 16) are to be reported for the following four categories:

Monitoring, routine/repeat (for filtered systems): A violation for a system's failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): A violation for a system's failure to properly treat its water.

Monitoring, routine/repeat (for unfiltered systems): A violation for a system's failure to carry out required water tests, or to report the results of those tests.

Failure to filter (for unfiltered systems): A violation for a system's failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

Revised Total Coliform Rule (RTCR): The federal RTCR took effect April 1, 2016 replacing TCR. The RTCR establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one-month compliance period, a significant monitoring violation occurs.

Acute MCL violation: A violation where the system found *E. coli*, potentially harmful bacteria, in its water, thereby violating the rule.

Major routine and follow-up monitoring: A violation where a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

RTCR Treatment Technique: RTCR added treatment technique requirements. Systems that fail to conduct a Level 1 or Level 2 Assessment within 30 days of triggering the assessment or fail to take corrective action for sanitary defects identified during an assessment incur a treatment technique violation. In addition, RTCR added a treatment technique for seasonal systems. Seasonal systems that fail to complete a start-up procedure including coliform monitoring prior to opening for the season incur a violation.

Treatment Techniques (TT): A water treatment process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the SWTRs and LCR have also been included in this category of violation for purposes of this report.

Unfiltered Systems: Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H]. Pennsylvania requires all water systems with surface water sources to install filtration.

Violation: A failure to meet any state or federal drinking water regulation.

Figure 5. Pennsylvania—SUMMARY OF VIOLATIONS
MCL and Significant Monitoring/Reporting
Annual Compliance Report -- January 1, 2023 to December 31, 2023

	MCL (mg/L)	MCL Violations		Significant Monitoring/Reporting Violations	
		Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations
ORGANIC CONTAMINANTS					
1,1,1-Trichloroethane	0.2	0	0	155	98
1,1,2-Trichloroethane	0.005	0	0	155	98
1,1-Dichloroethylene	0.007	0	0	156	99
1,2-Dichloroethane	0.005	0	0	155	98
1,2-Dichloropropane	0.005	0	0	155	98
1,2 Dibromo-3-Chloropropane (DBCP)	0.0002	0	0	150	78
1,2,4-Trichlorobenzene	0.07	0	0	155	98
2,3,7,8-TCDD (Dioxin)	$3X10^{-8}$	0	0	173	94
2,4,5-TP (Silvex)	0.05	0	0	256	128
2,4-D	0.07	0	0	164	88
Alachlor (Lasso)	0.002	0	0	171	87
Atrazine	0.003	0	0	139	69
Benzene	0.005	0	0	155	98
Benzo (A) Pyrene	0.0002	0	0	143	70
BHC-gamma (Lindane)	0.0002	0	0	182	91
Carbofuran	0.04	0	0	150	78
Carbon Tetrachloride	0.005	0	0	155	98
Chlordane	0.002	0	0	159	84
cis-1,2-Dichloroethylene	0.07	1	1	156	99
Dalapon	0.2	0	0	167	91
Di(2-Ethylhexyl) Adipate	0.4	0	0	149	75
Di(2-Ethylhexyl) Phthalate	0.006	1	1	184	104
Dichloromethane (Methylene Chloride)	0.005	0	0	160	102
Dinoseb	0.007	0	0	164	87
Diquat	0.02	0	0	147	75
Endothall	0.1	0	0	163	88
Endrin	0.002	0	0	177	89
Ethylbenzene	0.7	0	0	155	98
Ethylene Dibromide (EDB)	0.00005	0	0	147	75
Glyphosate	0.7	0	0	142	73
Heptachlor	0.0004	0	0	171	87
Heptachlor Epoxide	0.0002	0	0	175	90
Hexachlorobenzene (HCB)	0.001	0	0	171	87
Hexachlorocyclopentadiene	0.05	0	0	173	86

	MCL (mg/L)	MCL Violations		Significant Monitoring/Reporting Violations	
		Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations
Methoxychlor	0.04	0	0	171	87
Monochlorobenzene (Chlorobenzene)	0.1	0	0	155	98
o-Dichlorobenzene	0.6	0	0	155	98
Oxamyl (Vydate)	0.2	0	0	149	77
p-Dichlorobenzene	0.075	0	0	155	98
Pentachlorophenol	0.001	0	0	161	86
Picloram	0.5	0	0	157	82
Simazine	0.004	0	0	143	73
Styrene	0.1	0	0	156	99
Tetrachloroethylene	0.005	2	1	155	98
Toluene	1	0	0	155	98
Total Polychlorinated Biphenyls (PCBS)	0.0005	0	0	181	88
Toxaphene	0.003	0	0	155	81
trans-1,2-Dichloroethylene	0.1	0	0	156	99
Trichloroethylene	0.005	10	4	155	98
Vinyl Chloride	0.002	0	0	0	0
Xylenes, Total	10	0	0	156	98
Subtotal		**17**	**5**	**804[illegible]366**	**35[illegible]2**
INORGANIC CONTAMINANTS					
Antimony, Total	0.006	0	0	28	23
Arsenic	0.010	22	7	43	36
Asbestos	7	0	0	39	32
Barium	2	0	0	32	28
Beryllium, Total	0.004	0	0	30	26
Cadmium	0.005	0	0	30	26
Chromium	0.1	0	0	29	25
Cyanide	0.2	0	0	42	35
Fluoride	2	5	2	31	27
Mercury	0.002	0	0	35	28
Nickel	0.1	0	0	29	25
Nitrate(as Nitrogen)	10	32	20	476	404
Nitrite (as Nitrogen)	1	0	0	477	405
Selenium	0.05	0	0	30	26
Thallium, Total	0.002	0		30	26
Subtotal		**59**	**29**	**1381**	**460**
PER-AND POLYFLUOROALKYL SUBSTANCES					
PFOS	18 ng/l	3	1	5	5
PFOA	14 ng/l	9	4	5	5
Subtotal		**12**	**4**	**10**	**5**

	MCL (mg/L)	MCL Violations		Significant Monitoring/Reporting Violations	
		Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations
RADIONUCLIDE CONTAMINANTS					
Radium 226	---------	0	0	42	23
Radium 228	---------	0	0	44	25
Combined Radium (-226 & -228)	5 pCi/L	3	1	0	0
Combined Uranium	30 µg/L	0	0	22	14
Gross Alpha, Excl. Radon & U	15 pCi/L	9	5	65	38
Gross Beta & Photo Emitters	4 mrem/yr	0	0	1	1
38-Strontium-90	8 pCi/L	0	0	1	1
Tritium	20,000 pCi/L	0	0	1	1
Subtotal		**12**	**4**	**176**	**51**
TOTAL CHEMICAL CONTAMINANTS		**100**	**45**	**9611**	**794**

Figure 6A. Pennsylvania—SUMMARY OF VIOLATIONS
Revised Total Coliform Rule
MCL, MR and Treatment Techniques (TT) Violations
Annual Compliance Report -- January 1, 2023 to December 31, 2023

MCL Violations		Monitoring/Reporting Violations		Treatment Technique Violations	
Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations
81	**68**	**2719**	**1278**	**486**	**343**

Figure 6B. Pennsylvania—SUMMARY OF VIOLATIONS
Surface Water Treatment/IESWTR/LT2SWTR and Lead and Copper Rules
Treatment Techniques (TT) and Significant Monitoring/Reporting
Annual Compliance Report -- January 1, 2023 to December 31, 2023

	Treatment Technique Violations		Significant Monitoring/ Reporting Violations	
	Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations
SURFACE WATER TREATMENT RULE/IESWTR/LT2SWTR				
Filtered systems				
Monitoring, routine/repeat			213	88
Treatment techniques	21	8		
Unfiltered systems				
Monitoring, routine/repeat			26	10
Treatment techniques	2	1		
Subtotal	**23**	**9**	**239**	**98**
LEAD AND COPPER RULE				
Initial lead and copper tap M/R			20	17
Follow-up or routine lead and copper tap M/R			171	164
Treatment installation/technique	22	22		
Subtotal	**22**	**22**	**191**	**181**

Figure 6C. Pennsylvania—SUMMARY OF VIOLATIONS
Ground Water Rule
Treatment Techniques (TT) and Significant Monitoring/Reporting
Annual Compliance Report -- January 1, 2023 to December 31, 2023

	Treatment Technique Violations		Significant Monitoring/Reporting Violations	
	Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations
GROUNDWATER RULE	**168**	**72**	**490**	**261**

Figure 6D. Pennsylvania—SUMMARY OF VIOLATIONS
Disinfectants and Disinfection Byproducts
MCL, MRDL, TT and Significant Monitoring/Reporting
Annual Compliance Report -- January 1, 2023 to December 31, 2023

	MCL (mg/L)	Type	MCL, MRDL and Treatment Technique Violations		Significant Monitoring/Reporting Violations	
			Number of Violations	Number of PWSs With Violations	Number of Violations	Number of PWSs With Violations
DISINFECTANTS/ DISINFECTION BYPRODUCTS CONTAMINANTS						
Bromate	0.01	MCL	0	0	129	38
Chlorine	4.0	MRDL	0	0	278	176
Chloramine	4.0	MRDL	0	0	0	0
Chlorine Dioxide	0.8	MRDL	0	0	5	4
Chlorite	1.0	MCL	1	1	6	4
Haloacetic Acids (Five)	0.06	MCL	34	14	214	186
Trihalomethanes	0.08	MCL	22	12	185	168
Total Alkalinity		TT	0	0	25	19
Total Organic Carbon		TT	9	4	35	25
Subtotal	**MCL & MRDL**		**57**	**24**	**MR 877**	**419**
		TT	**9**	**4**		

Figure 7. Pennsylvania—SUMMARY OF VIOLATIONS
MCL, MRDL, Treatment Technique, PN, and Significant Monitoring/Reporting
Annual Compliance Report -- January 1, 2023 to December 31, 2023

Number of Violations	Number of Systems
23,968	**3,039**

NOTE: This includes consumer confidence reporting violations involving 247 community water systems and 8,577 Public Notification violations.

Violations Summary by Violation Type and PWS Type and Size

Figure 8.

COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
REVISED TOTAL COLIFORM

	M/R	MCL	PN
SMALL	184	2	94
MEDIUM	39	0	8
LARGE	4	1	2
TOTAL	227	3	104

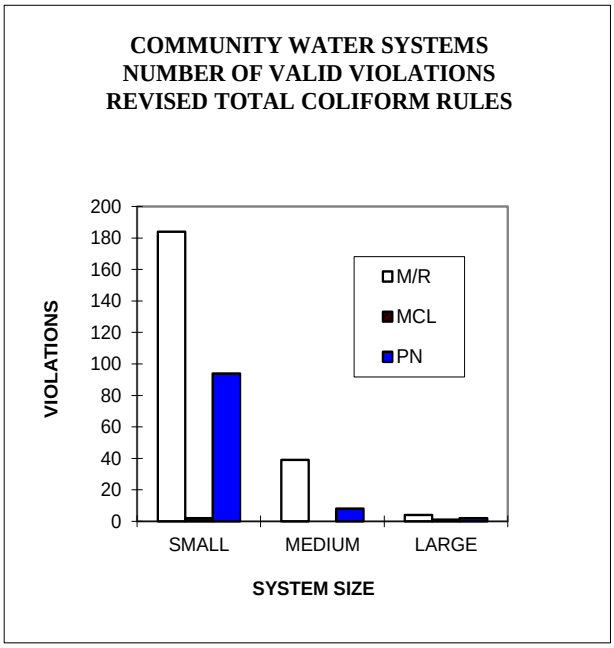


Figure 9.

COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
CHEMICALS - RADIONUCLIDES

	M/R	MCL	PN
SMALL	3,546	28	3,574
MEDIUM	1,579	1	1,580
LARGE	52	0	0
TOTAL	5,177	29	5,154

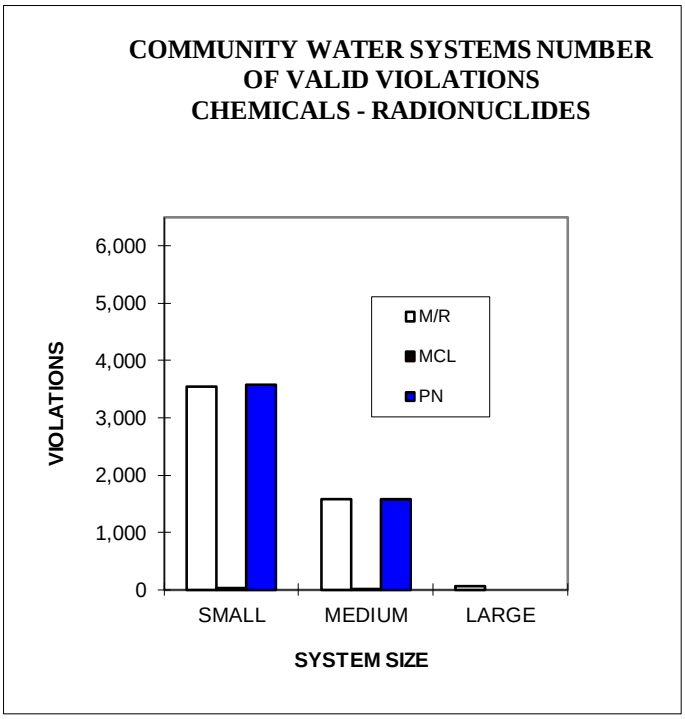


Figure 10.

COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
CHEMICALS - PFAS

	M/R	MCL	PN
SMALL	6	9	2
MEDIUM	2	2	0
LARGE	0	0	0
TOTAL	8	11	2

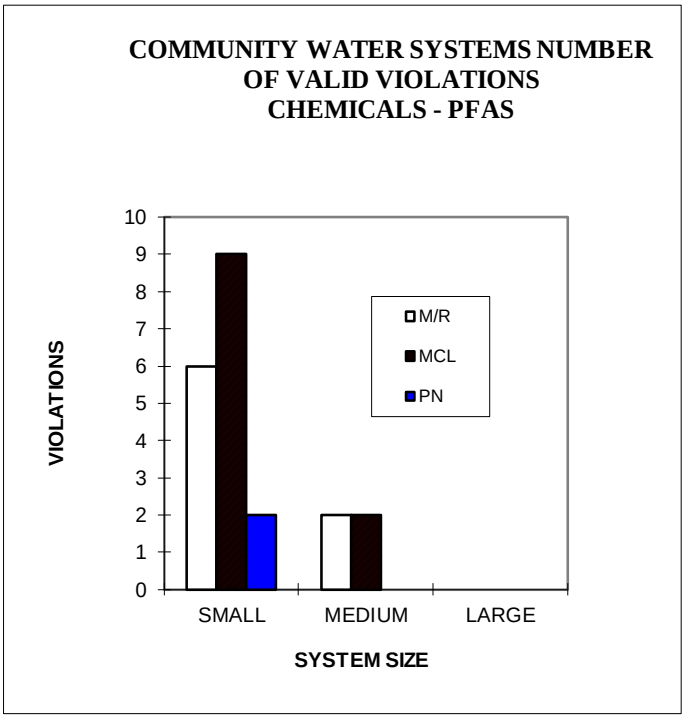


Figure 11.

COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
FILTER RULE

	M/R	TT	PN
SMALL	119	2	49
MEDIUM	79	8	4
LARGE	4	0	0
TOTAL	202	10	53

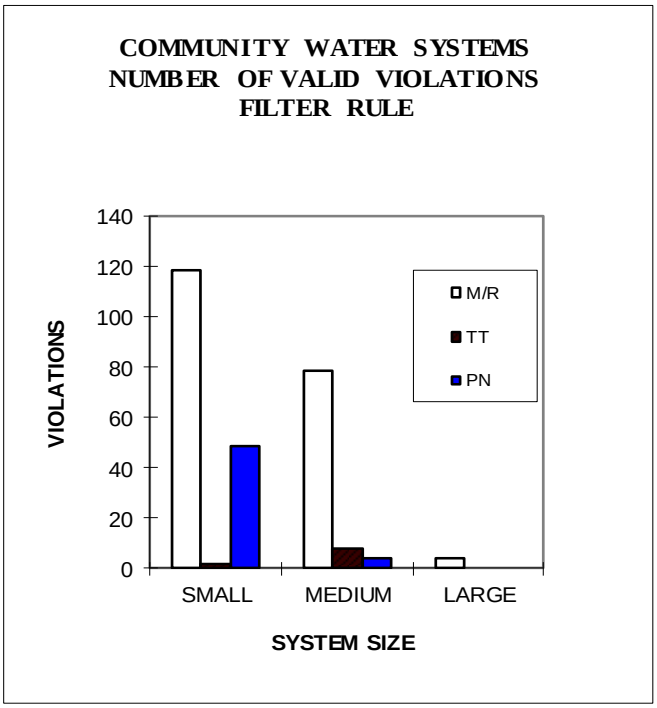


Figure 12.

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COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
LEAD AND COPPER RULE

	M/R	TT	PN
SMALL	97	14	10
MEDIUM	11	0	0
LARGE	0	0	0
TOTAL	108	14	10

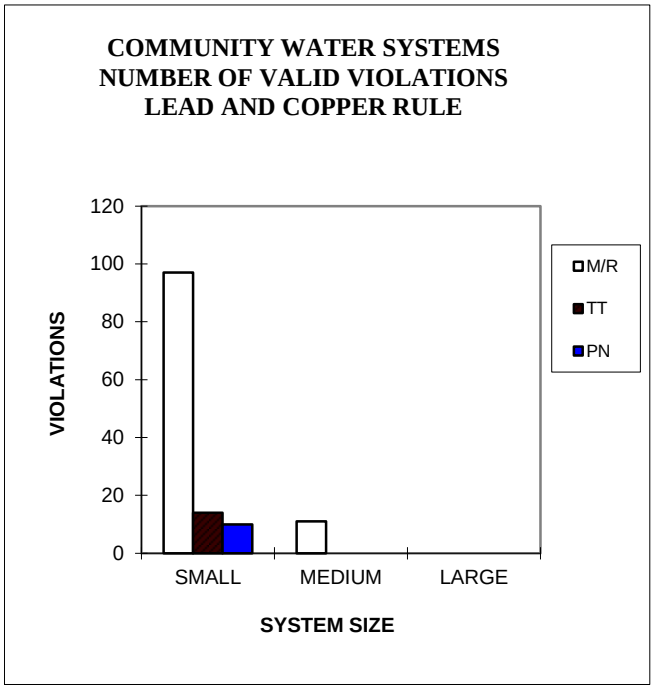


Figure 13.

COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
GROUND WATER RULE

	M/R	TT	PN
SMALL	359	142	259
MEDIUM	31	1	2
LARGE	0	0	0
TOTAL	390	143	261

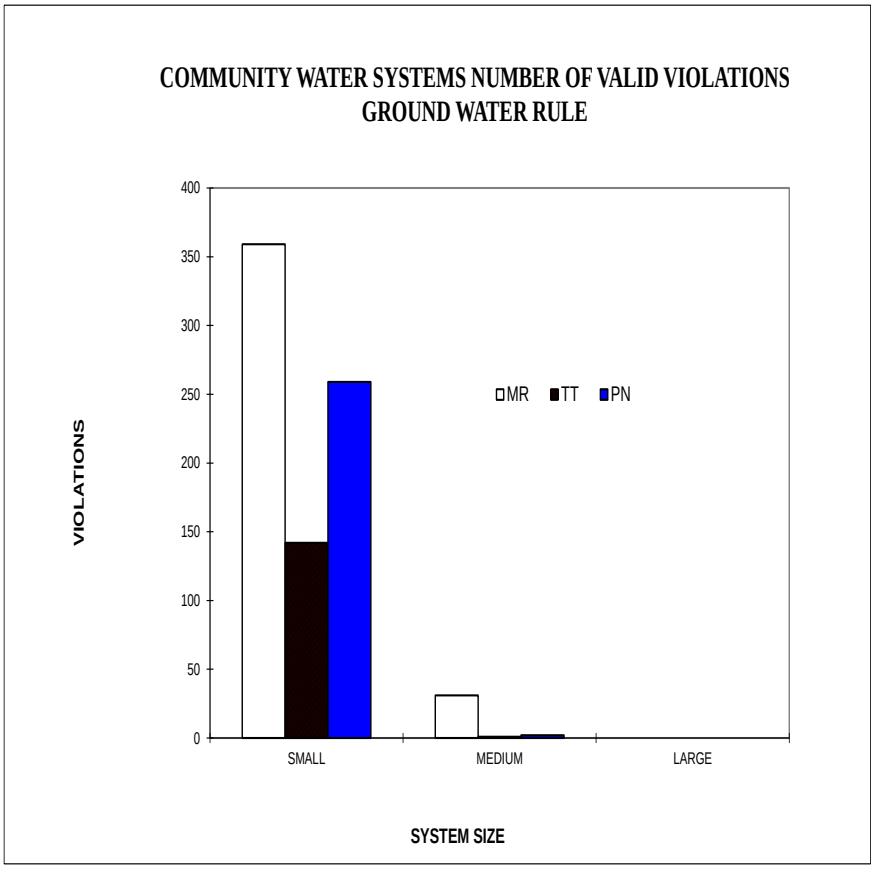


Figure 14.

COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
DISINFECTANTS/BYPRODUCTS

	M/R	MCL	MRDL	T/T	PN
SMALL	427	41	0	6	545
MEDIUM	130	6	0	33	33
LARGE	10	0	0	0	0
TOTAL	567	47	0	39	578

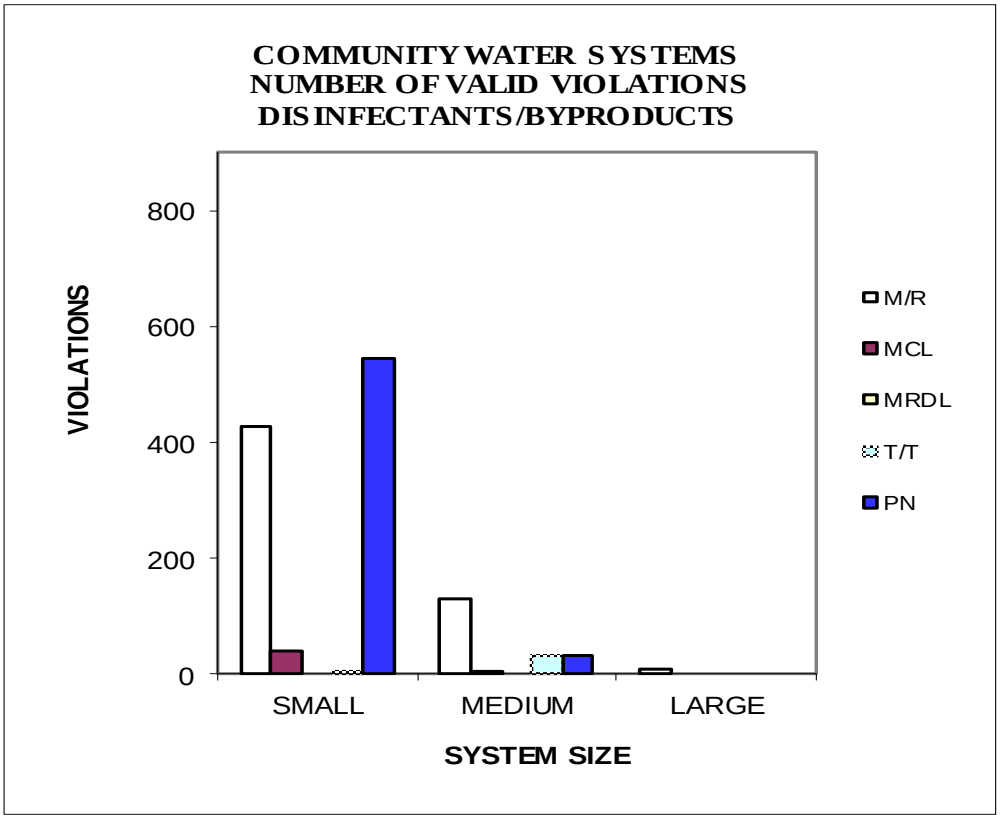


Figure 15.

COMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS
CONSUMER CONFIDENCE REPORTS

	M/R
SMALL	222
MEDIUM	25
LARGE	0
TOTAL	247

Violations for missing reports.

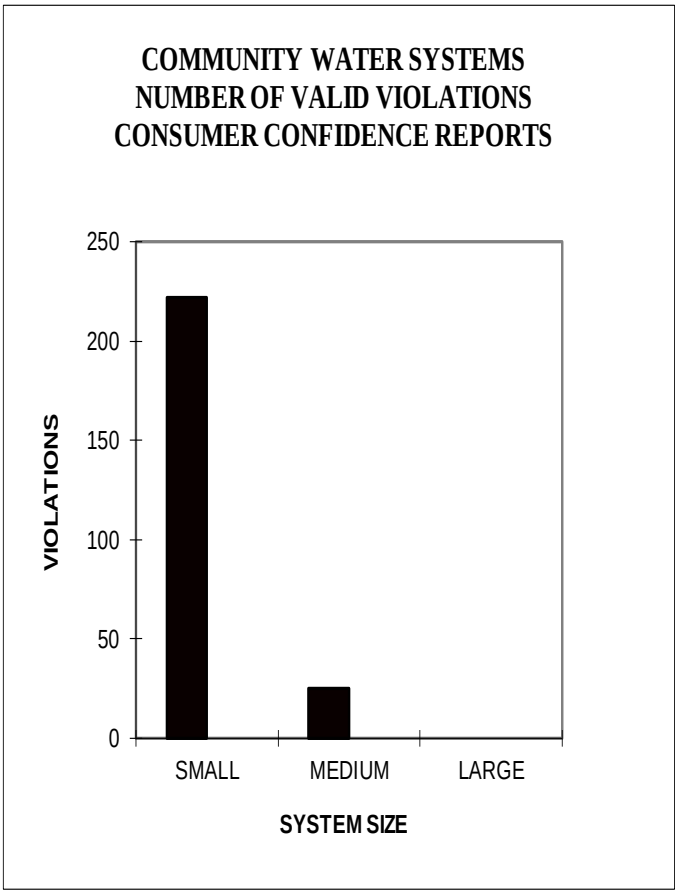


Figure 16.

NONTRANSIENT NONCOMMUNITY WATER SYSTEMS
NUMBER OF VALID VIOLATIONS

	M/R	MCL	MRDL	TT	PN
RTCR	188	9	0	38	115
CHEM/RAD	2,632	33	0	0	417
GWR	11	0	0	4	12
FILTER	12	0	0	0	0
LCR	101	0	0	17	21
DBPR	177	10	0	3	270
PFAS	0	1	0	0	0
TOTAL	3,121	53	0	62	835

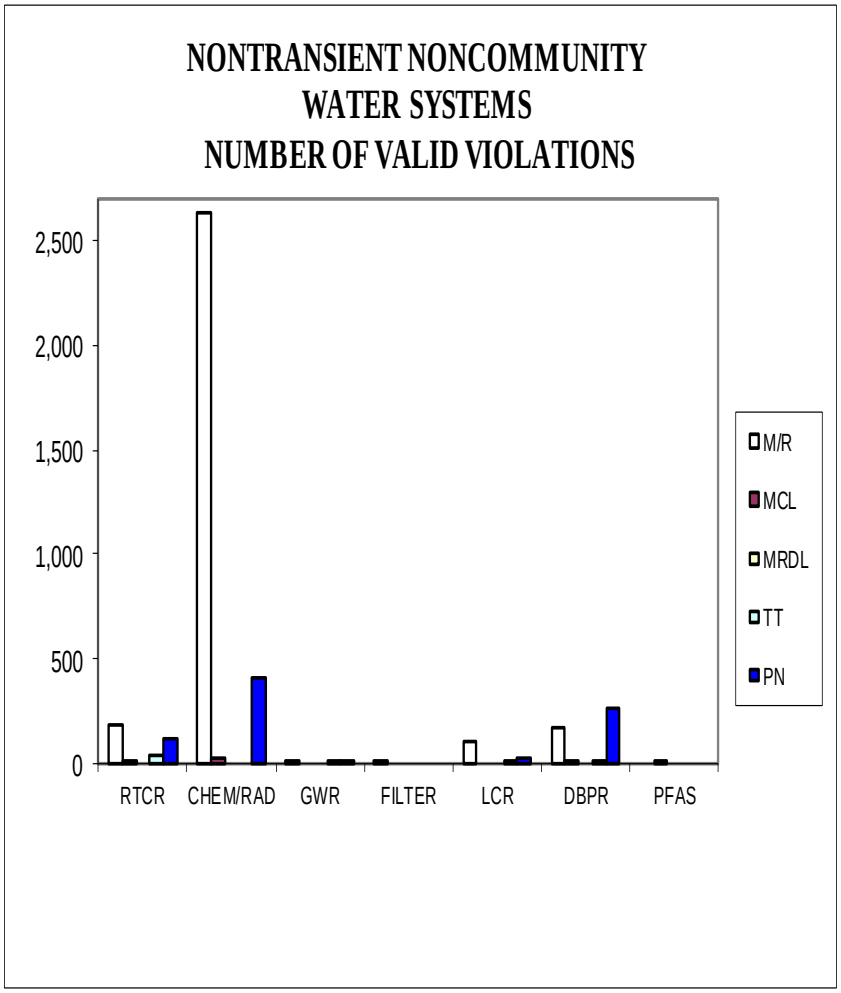


Figure 17.

TRANSIENT NONCOMMUNITY WATER SYSTEMS NUMBER OF VALID VIOLATIONS

	M/R	MCL	MRDL	TT	PN
RTCR	1,738	69	0	420	1,356
CHEM/RAD	662	26	0	0	259
GWR	89	0	0	21	146
FILTER	25	0	0	13	9
LCR	0	0	0	0	0
DBPR	131	0	0	0	48
PFAS	2	0	0	0	0
TOTAL	2,647	95	0	454	1,818

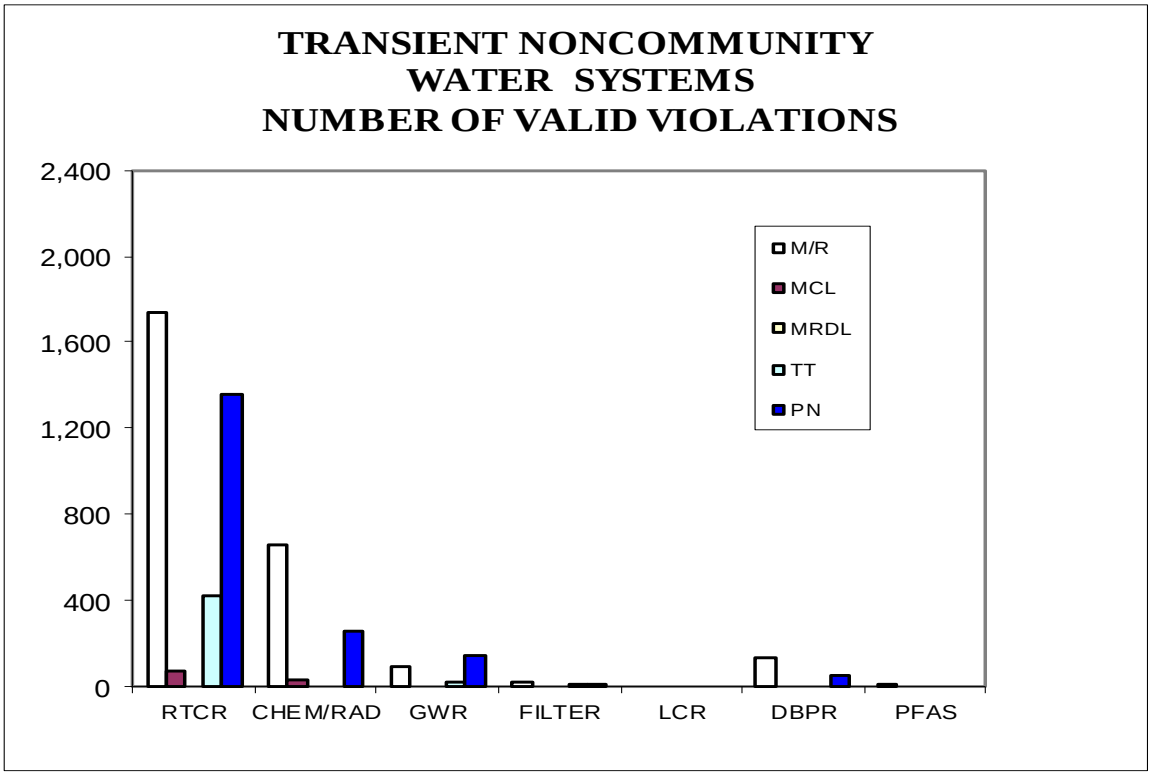
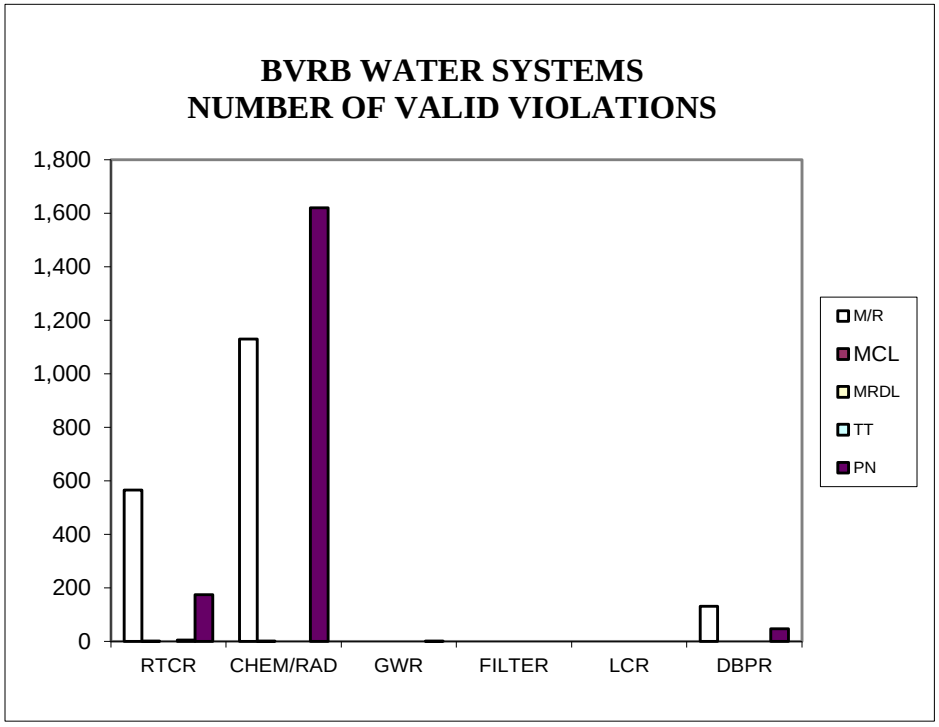


Figure 18.

BOTTLED, VENDED, RETAIL, & BULK (BVRB) WATER SYSTEMS
NUMBER OF VALID VIOLATIONS

	M/R	MCL	MRDL	TT	PN
RTCR	566	1	0	6	175
CHEM/RAD	1,130	2	0	0	1,620
GWR	0	0	0	0	2
FILTER	0	0	0	0	0
LCR	0	0	0	0	0
DBPR	131	0	0	0	48
TOTAL	1,827	3	0	6	1,845



Compliance Rates

A public water system is counted as being in compliance if there were no violations during the year. A public water system is counted as being out of compliance if there was any time period within the year when there was an outstanding violation. Being counted as out of compliance does not imply that the violation spanned the entire year.

Figure 19.

COMMUNITY WATER SYSTEMS
PERCENT IN COMPLIANCE
MONITORING & REPORTING

	SYSTEMS	POPULATION
SMALL	56.8%	51.7%
MEDIUM	45.2%	47.6%
LARGE	64.7%	43.5%

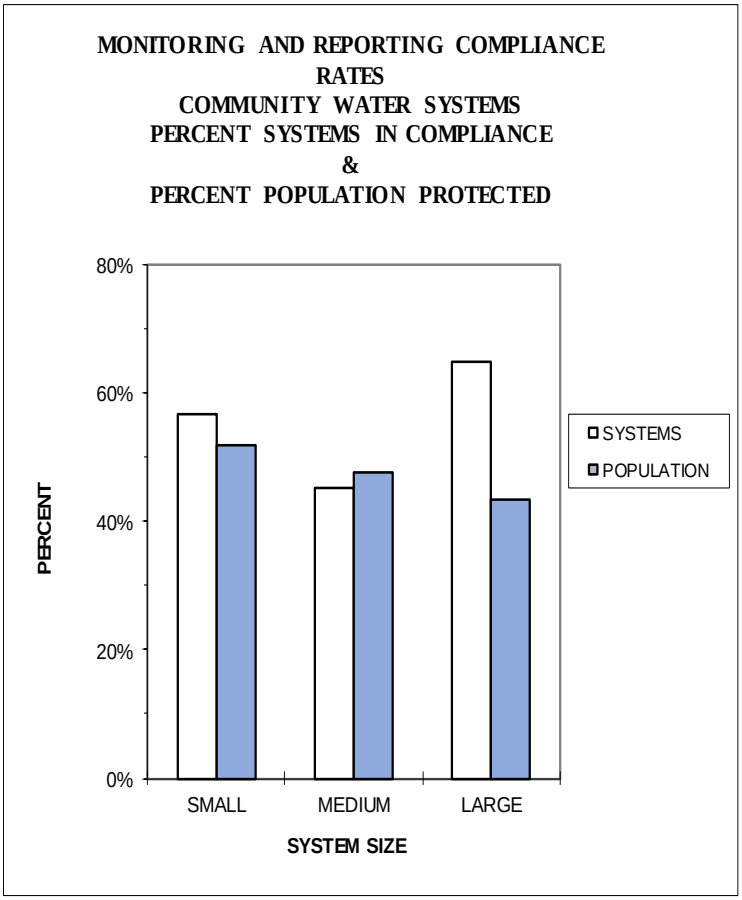


Figure 20.

COMMUNITY WATER SYSTEMS
PERCENT IN COMPLIANCE
FOR MAXIMUM CONTAMINANT LEVELS

	SYSTEMS	POPULATION
SMALL	98.4%	97.9%
MEDIUM	98.0%	97.8%
LARGE	97.1%	99.2%

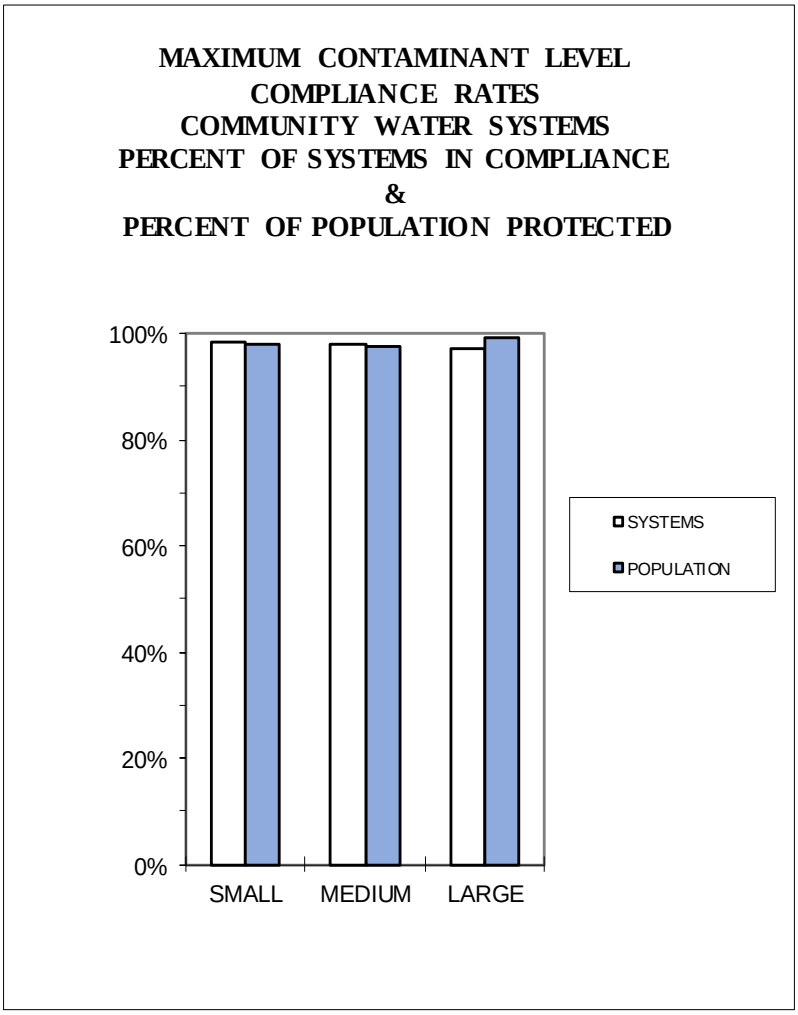


Figure 21.

COMMUNITY WATER SYSTEMS
PERCENT IN COMPLIANCE
TREATMENT TECHNIQUES

	SYSTEMS	POPULATION
SMALL	94.5%	96.4%
MEDIUM	97.3%	97.5%
LARGE	97.1%	99.2%

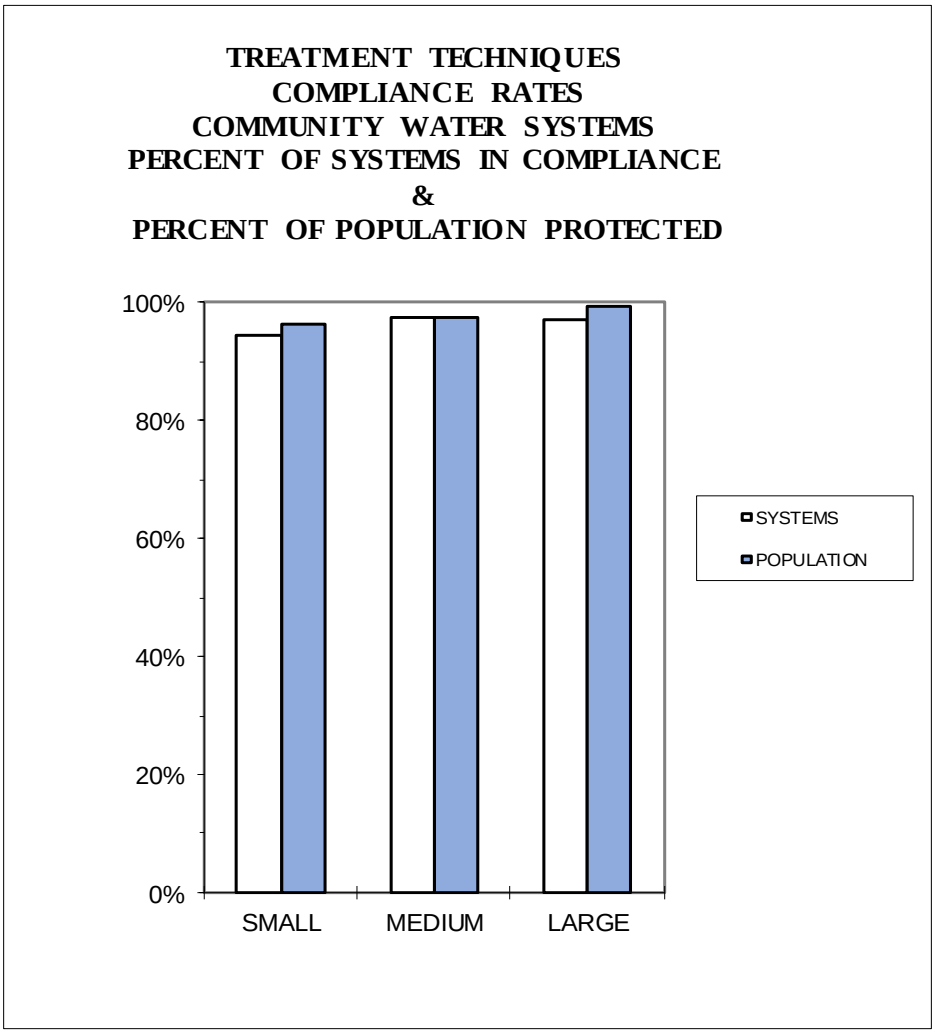


Figure 22.

COMMUNITY WATER SYSTEMS
PERCENT IN COMPLIANCE
MAXIMUM RESIDUAL DISINFECTANT LEVELS

	SYSTEMS	POPULATION
SMALL	100.0%	100.0%
MEDIUM	100.0%	100.0%
LARGE	100.0%	100.0%

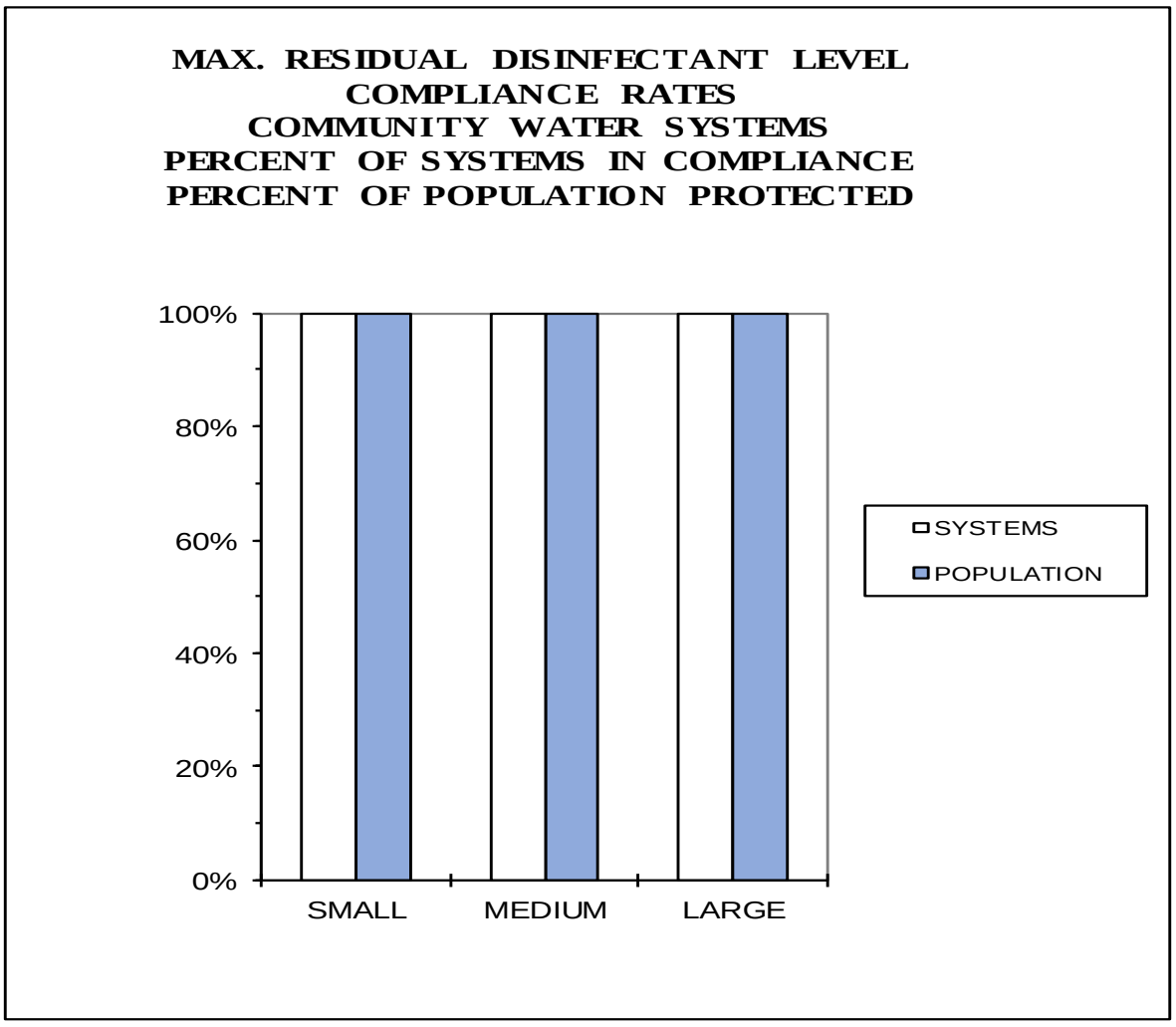


Figure 23.

NONTRANSIENT NONCOMMUNITY WATER SYSTEMS
PERCENT IN COMPLIANCE

	SYSTEMS	POPULATION
M/R	69.6%	65.3%
MCL	97.8%	97.1%
MRDL	100.0%	100.0%
TT	97.0%	98.0%
PN	85.7%	81.3%

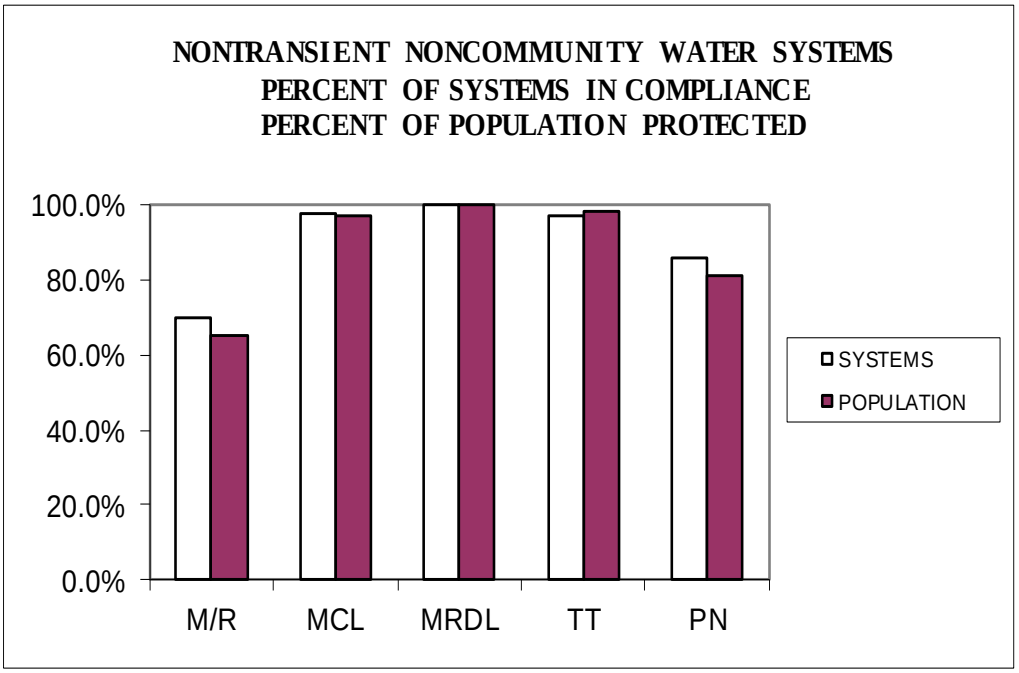


Figure 24.

TRANSIENT NONCOMMUNITY WATER SYSTEMS
PERCENT IN COMPLIANCE

	SYSTEMS	POPULATION
M/R	77.7%	77.1%
MCL	98.5%	98.2%
MRDL	100.0%	100.0%
TT	93.7%	92.5%
PN	83.9%	84.2%

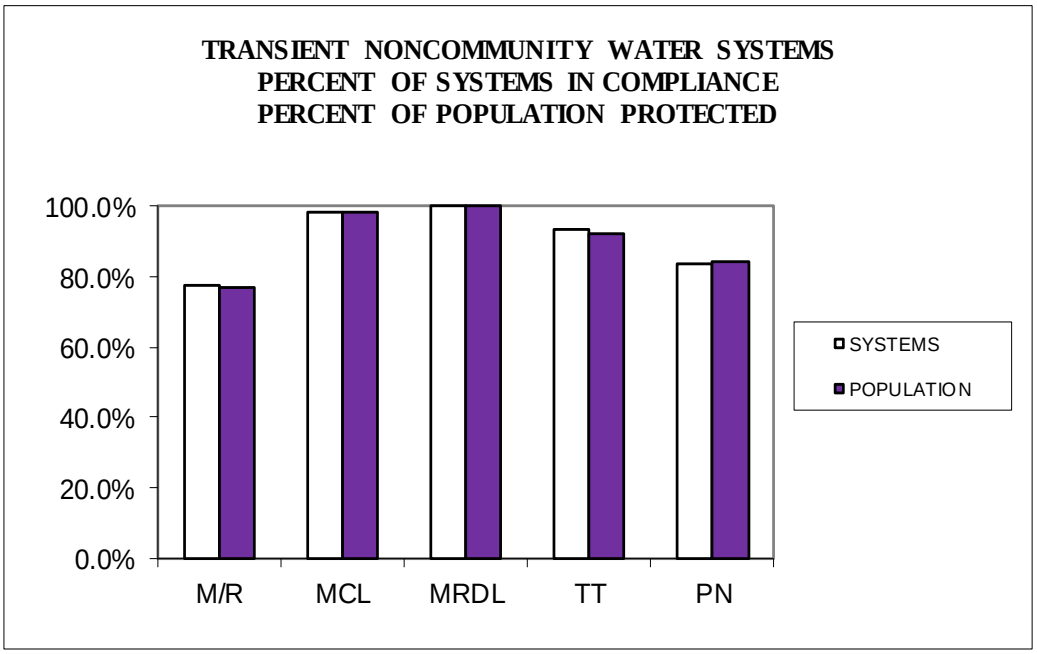


Figure 25.

BVRB WATER SYSTEMS
PERCENT IN COMPLIANCE

	SYSTEMS	POPULATION
M/R	39.2%	11.7%
MCL	100.0%	100.0%
MRDL	100.0%	100.0%
TT	96.8%	94.2%
PN	88.6%	94.0%

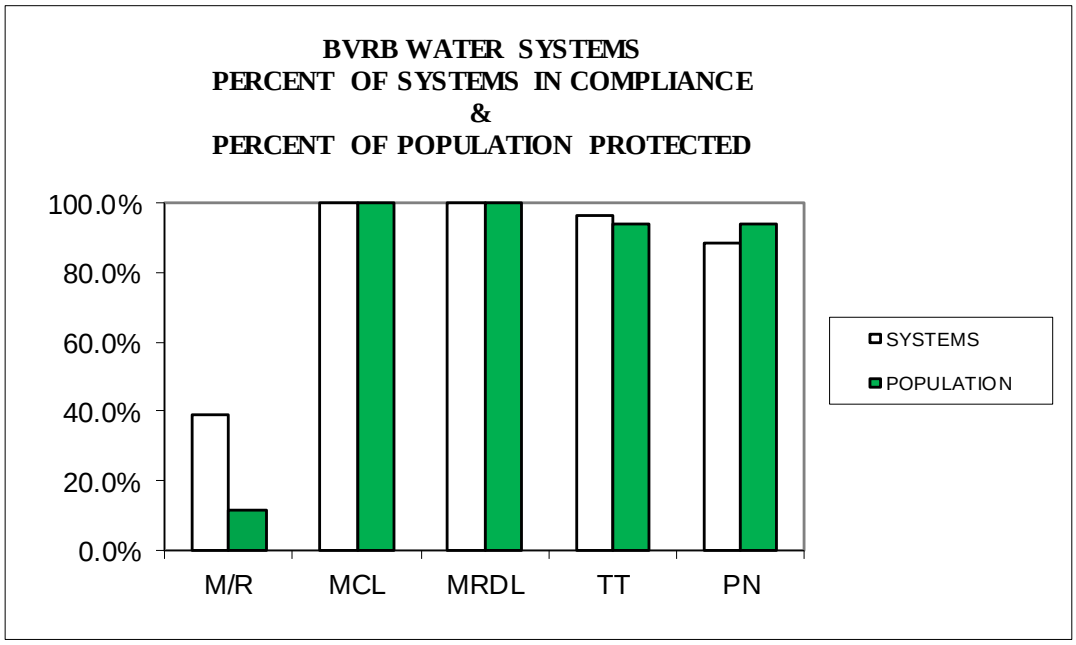
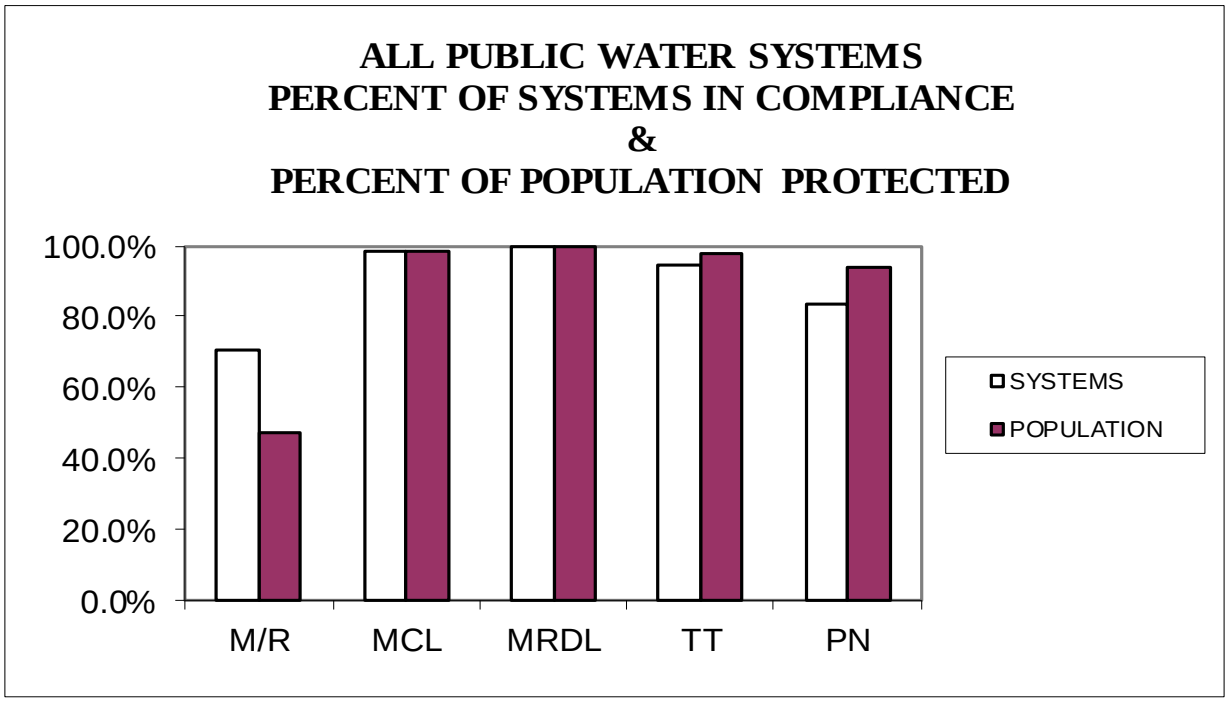


Figure 26.

ALL PUBLIC WATER SYSTEMS
PERCENT IN COMPLIANCE

	SYSTEMS	POPULATION
M/R	70.4%	47.5%
MCL	98.4%	98.5%
MRDL	100.0%	100.0%
TT	94.5%	98.0%
PN	83.6%	94.1%



3. Discussion and Conclusions

Since the Safe Drinking Water Act was reauthorized in 1996, federal and state regulations have undergone a rapid evolution, with 20 new regulations being promulgated. As a result, public health standards have become more protective. However, the cumulative effect of the new regulations has led to a steep learning curve and a severe shortfall in resources, so many water suppliers and state agencies are struggling to keep pace. Pennsylvania was able to address the shortfall in staffing levels with promulgation of the General Update and Fees Rule in 2018. As a result of new annual fees and increased permit fees, the Department was able to hire 33 additional staff.

In 2023, a large majority of Pennsylvanians received water from public water systems that reported no violations of health-based standards. The trend in compliance rates over the last ten years indicates a consistently high compliance rate for health-based standards. The compliance rate for meeting all monitoring and reporting requirements has fluctuated over the years due in part to the timing for when new rules and monitoring requirements are being implemented. For example, the compliance rate fell in 2016 when the new RTCR rule was implemented, and again in 2018, when the new General Update provisions were implemented. In 2023, 70% of all public water systems were in compliance with monitoring and reporting requirements, and 95% of all public water systems were in compliance with the health-based standards.

Refer to Figure 27 and 28 for more details about compliance trends.

Figure 27. Compliance Trends – Percent of All Public Water Systems in Compliance

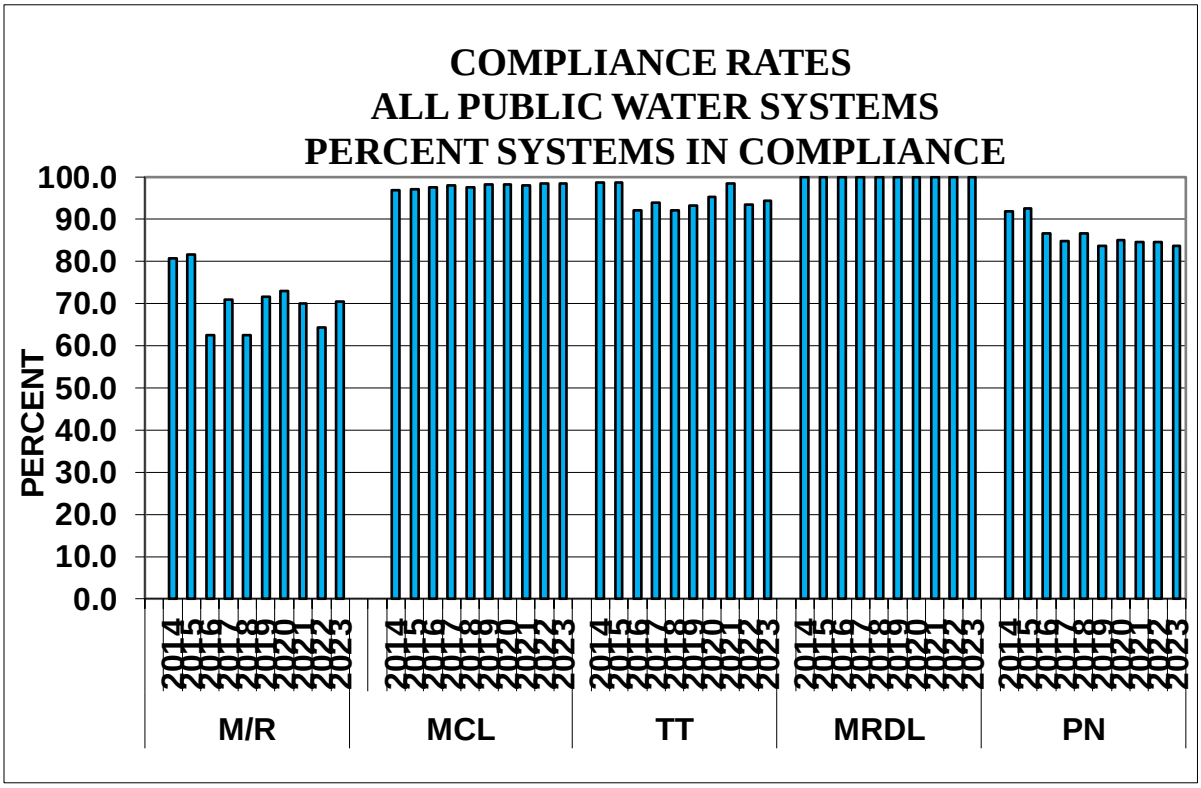
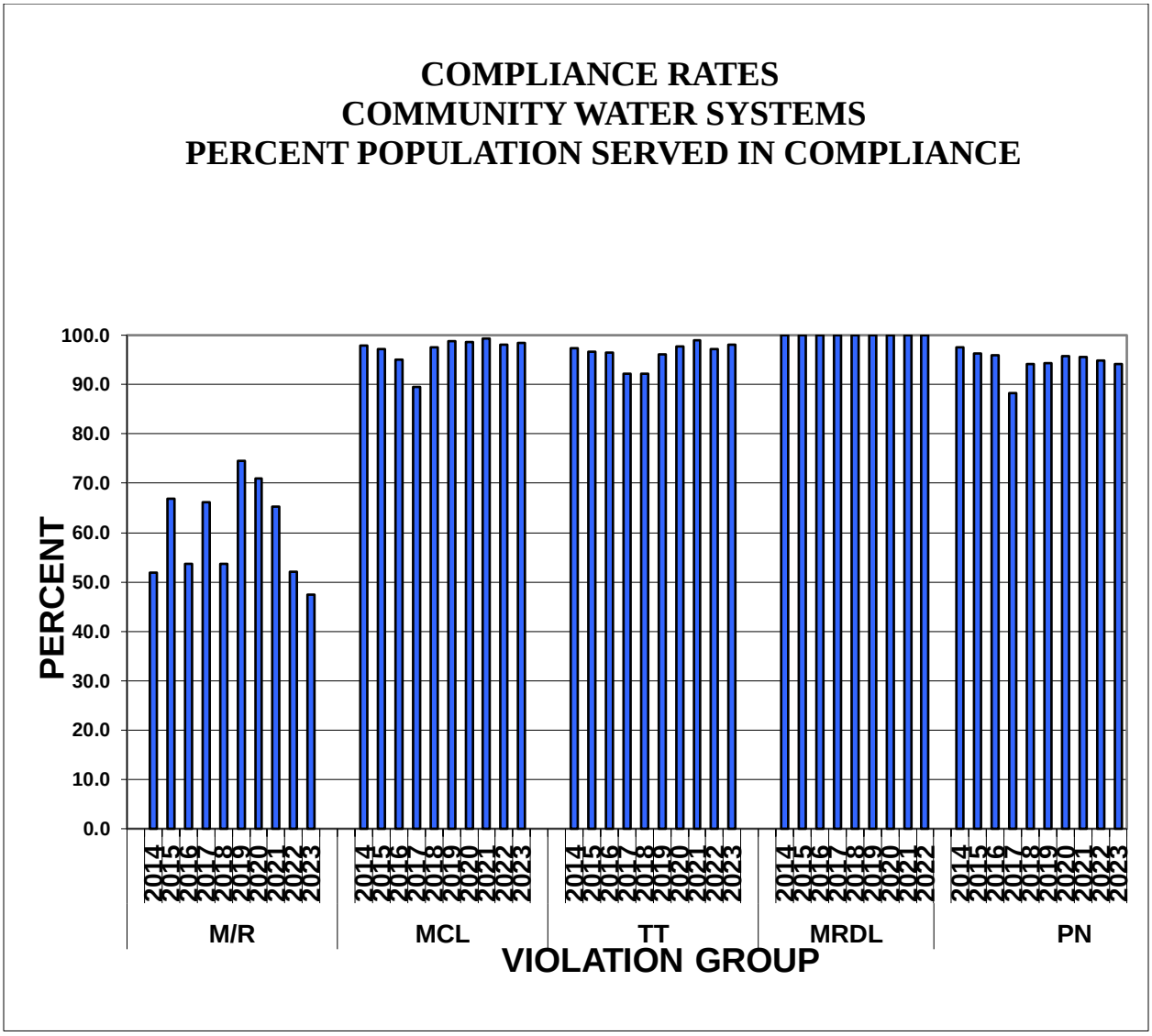


Figure 28. Compliance Trends – Percent of Population Served by Community Water Systems in Compliance



In 2023, public water systems continued to meet the challenges from existing regulations, while also complying with newer requirements for the Disinfection Requirements Rule (DRR) and the General Update and Fees Rule.

Water systems continued efforts to assess the potential threats to and protect their infrastructure from acts of terrorism in 2023. Additionally, DEP maintains a rapid notification system in the event of planned or actual attacks against water systems.

As compliance is a long-term effort, DEP staff members continue to work with each and every violator to address violations as they occur. In most instances, these efforts result in a voluntary return to compliance. However, when those efforts fail, progressive levels of compliance and enforcement are used.

DEP will continue to develop programs to assist water suppliers in protecting and managing their sources of supply; building technical, managerial, and financial capability; and training and certifying personnel responsible for the day-to-day operations of their drinking water systems. Congress enacted sweeping

amendments to the federal Safe Drinking Water Act that will lend considerable support to DEP's efforts. In addition to establishing a state revolving loan fund for water system improvements, Congress established technical and financial assistance programs to states and suppliers for source water protection, capacity development, and training and outreach activities. These tools will enable DEP to assist Pennsylvania's public water systems in delivering a safe and adequate supply of drinking water to their consumers.

Where To Go For Additional Information

Copies of this report, an Appendix listing the public water systems having MCL, MRDL or treatment technique violations during 2023, and additional information about the Pennsylvania Safe Drinking Water Program are available. Please contact DEP at:

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