# 2023 ANNUAL COMPLIANCE REPORT STATE OF ALASKA



Department of Environmental Conservation Division of Environmental Health Drinking Water Program

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# Definition of a Public Water System

# Public Water System (PWS)

A PWS is a system for the provision of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or serves at least 25 individuals for at least 60 days per year.

# Non-Community Water System

Non-Community Water Systems are public water systems that do not serve a permanent residential population. This category is further divided into two types (specified below):

# Community Water System (CWS)

CWS are public water systems that have at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents, such as a municipal water system serving a town or village, or a mobile home park.

# Non-Transient Non-Community Water System (NTNC)

NTNC are public water systems that serve at least 25 of the same people daily at least 6 months of the year, such as churches, schools, and office buildings.

# Transient Non-Community Water System (TNC)

TNC are public water systems that serve an average of at least 25 people at least 60 days per year, such as campgrounds, hotels, and restaurants.

# 2 Overview of the National Public Drinking Water Program

The EPA established the Public Water System Supervision (PWSS) Program through the 1974 Safe Drinking Water Act (SDWA), with major amendments in 1986 and 1996. The SDWA, associated amendments, and federal drinking water regulations were developed by EPA help to ensure the public receives safe drinking water. Some key provisions of the SDWA are highlighted below:

- Sets national maximum contaminant level goals (MCLG) as well as limits on allowable contaminant levels in drinking water provided by PWSs. These limits are called maximum contaminant level (MCL) and maximum residual disinfectant level (MRDL).
- Establishes treatment techniques or action levels in lieu of MCLs to control unacceptable levels of specific contaminants, such as turbidity or lead, in drinking water from PWSs.
- Requires PWSs to monitor for regulated drinking water contaminants and requires the results to be reported to the state.
- Requires PWSs to notify their customers when violations of the SDWA occur.
- Requires a certification program for PWS operators and for environmental laboratories where drinking water samples collected from a PWS are analyzed.
- The PWSS Program is designed to supervise the implementation of the SDWA requirements for PWSs. The SDWA allows states, territories, and tribes to seek primacy, which is approval from EPA to administer and enforce the PWSS Program within their state, territory, or tribe. States must meet specific requirements set forth in the SDWA regulations, including the development or adoption of drinking water regulations that are at least as stringent as the federal regulations, and must demonstrate that the state can enforce the program requirements. Currently all states and territories have been delegated authority for Primacy for the PWSS Program with exception of Wyoming and the District of Columbia (neither of which has sought delegation).

# 3 Alaska Drinking Water Program Components

The Alaska Department of Environmental Conservation's (DEC) Drinking Water Program is comprised of 60 staff positions that operate out of 4 offices located around the state, including Anchorage, Fairbanks, Soldotna, and Wasilla. Collectively, the offices are responsible for regulating 1,321 PWSs serving the visitors and residents of the State of Alaska (see **Figure 1** for distribution of water systems across Alaska). Funding for the Drinking Water (DW) Program is a mix of federal and state grant-match funds, general funds, and program receipts.

The SDWA Amendments authorized use of the Federal Drinking Water State Revolving Fund (DWSRF) through set-asides for state drinking water program activities, which include Drinking Water Protection Programs (Wellhead Protection and Source Water Assessment and Protection), Technical Assistance, and Program Management. The DEC, as the Primacy Agency for the state, establishes minimum standards for drinking water quality (typically by adopting federal standards) and establishes minimum engineering standards for water system facility infrastructure (construction) and system operation. The DW Program regulates PWSs by enforcing state and federal regulations.

The State of Alaska is a "direct implementation" state, meaning the state's DW Program staff work directly with the PWS owners and operators. In Alaska, there are no county or borough governments that support implementation and enforcement of the drinking water regulations at the local level. This report will focus on the compliance assistance and enforcement activities of the DW Program, which are listed in the major program components (next page) and are described in further detail beginning on page 10. However, compliance and enforcement activities are just two of the many activities of a comprehensive state drinking water program.



#### Figure 1: Distribution of Alaska Public Water Systems

# Major Components and Activities of Alaska's DW Program

#### **Compliance Assistance & Enforcement**

- Provide PWS owners and operators with information and educational materials regarding sampling and reporting requirements.
- Enter and review water system data in the state DW Program database, the Safe Drinking Water Information System (SDWIS/State).
- Determine PWS compliance with the SDWA requirements, rules, and federal and state drinking water regulations; issue violations when requirements are not met.
- Issue informal and formal enforcement actions to PWSs that are in violation of the SDWA or state drinking water regulations, as appropriate.

### **Technical & On-Site Inspections**

- Complete sanitary survey inspections at PWSs every 3 or 5 years.
- Complete Revised Total Coliform Rule Assessments as triggered and/or requested.
- Complete annual Filtration Avoidance Inspections for PWSs avoiding filtration as required under the Surface Water Treatment Rule.
- Respond to complaints about drinking water quality and quantity.
- Provide technical assistance to PWSs during disaster events.

### **Drinking Water Protection**

- Complete source water delineations, contaminant source inventory assessments, and susceptibility determinations for PWSs.
- Review and either approve or deny Synthetic Organic Chemicals (SOCs) Monitoring Waiver applications for PWSs.
- Partner with other agencies to review and comment on permitted activities within Drinking Water Protection areas.
- Encourage responsible drinking water source protection and drinking water protection planning efforts for PWSs.



### **Engineered Plans**

- Review engineered plans for new and modified PWSs, and issue construction approvals to systems that meet minimum requirements.
- Review engineered plans for constructing PWSs and issue operational approvals to systems that meet minimum requirements.
- Review requests for waivers of required separation distances involving PWSs.
- Assist consulting engineers with questions regarding engineered plan review requirements and regulations, including alternative treatment technologies and separation distance waivers.

## **General Program Activities**

- Adopt federal regulations, when required, and draft state regulations, as necessary.
- Fund the Environmental Health Laboratory's Drinking Water Laboratory Certification Program, consisting of both chemical and microbiological certification activities.
- Provide administration for the SDWIS/State database, the Compliance Monitoring Data Portal (CMDP), the Electronic Sanitary Survey (ESS), the Drinking Water Protection database, and the Engineering Submittal Tracking database.
- Implement the Sanitary Survey Inspector training and approval program for DW Program staff and third-party Sanitary Survey Inspectors.
- Provide public outreach, including presentations at conferences or by webinar and other training opportunities, for water system owners and operators, as appropriate.

# **1** Alaska's Public Water Systems

## Figure 2: Number of Public Water Systems



840,946 residents and visitors are served by public water systems in Alaska.

During CY2023, there were 1,321 active PWSs in Alaska: 408 CWS; 222 NTNC systems; and 691 TNC systems (see **Figure 2**).

These 1,321 PWSs served a combined population of 840,946 residents of and visitors to the State of Alaska. While there are a greater number of systems classified as TNC systems, the majority of the population in Alaska is served from CWSs.

Most of the PWSs in Alaska utilize groundwater as their source; however, a greater percentage of the population is served by systems using a surface water source (see **Figure 3**). This is primarily because several of the systems serving the largest populations in the state utilize a surface water source.

## Figure 3: Percentage of Population Served by Water Source & Number of PWSs by Water Source





of public water systems use **groundwater** as their primary source for drinking water.

of public water systems use **surface water** as their primary source for drinking water.

of public water systems use Ground Water Under Direct Influence of Surface Water (**GWUDISW**) as their primary source for drinking water.

# 5 Analysis of Compliance for Alaska Public Water Systems

# PWS Compliance with Sampling and Reporting Requirements

In order to protect public health through safe drinking water, PWSs are required to test for a variety of microbiological and chemical contaminants throughout the year. Currently, more than 90 different chemical and microbiological contaminants are regulated under the SDWA. PWSs are also subject to many state and federal regulations that cover all aspects of a water system, from design and construction standards to daily operation and maintenance requirements. When a PWS fails to complete monitoring and reporting requirements, exceeds an established MCL, or operates outside of treatment standards, a violation is issued to the water system.

During CY2023, a number of violations were issued. A total of 4,451 federal violations were issued to 566 PWSs (or 43%) in Alaska, leaving 755 PWSs (or 57%) violation-free (see Figure 4). Monitoring violations continue to be the most common violations, making up 84% of all violations issued to PWSs in Alaska during CY2023 (see Figure 5). The 4,451 total violations issued to PWSs across the state in CY2023 is a decrease in the number of violations compared to CY2022, when 7,527 violations were issued. This can be primarily attributed to a decrease in Synthetic Organic Contaminants (SOCs) violations which coincides with the end of the 3-year (2020-2022) monitoring period. Typically, at the end of each monitoring period, there is an increase in violations for systems that did not monitor or apply for/receive a SOC monitoring wavier. Additionally, the number of monitoring violations for Volatile Organic Contaminants (VOCs) also decreased in CY2023 when compared to CY2022. For further details on the violations see Table 1 on following page.

Figure 4: PWSs by Violation Status in CY2023







**Table 1 (**below) provides detailed information on the types of violations issued to Alaska PWSs during CY2023: For a detailed list of PWS that received MCL and/or Treatment Technique (TT) violations during CY2023 see **Attachment #1** ( <u>page 16</u>).

		MCL		Treatn	nent Tech	inique	Γ	Monitorin	g	Oth	oring Other Violation		
Rule Name	Violations	Resolved Violations	Systems in violation	Violations	Resolved Violations		Violations	Resolved Violations	Systems in violation	Violations	Resolved Violations	Systems in violation	
Total Coliform Rule + Revised Total Coliform Rule (Violation Codes: MCL 1A; Treatment Technique 2A, 2B, 2C, 2D; Monitoring 3A, 3B, 23; Other 5A, 28)	5	2	4	54	29	29	928	641	304	86	9	85	
Surface Water Treatment Rules (Violation Codes: Treatment Technique 33, 37, 40, 41, 42, 43, 44, 45 47; Monitoring 29, 31, 32, 36, 38)				92	53	37	752	450	107				
<b>Ground Water Rule</b> (Violation Codes: Treatment Technique 41, 42, 45, 48; Monitoring 19, 31, 34: Other: 20)				222	90	99	27	15	14	27	18	27	
Disinfection Byproducts Rules (Violation Codes: MCL 02, 11, 13; Treatment Technique 12, 46; Monitoring 27, 30, 35)	68	28	20	9	3	3	533	234	141				
Inorganic Contaminants (IOCs) (Violation Codes: MCL 01, 02; Monitoring 03, 04)	17	0	5				145	10	131				
Volatile Organic Contaminants (VOCs) (Violation Codes: MCL 01, 02; Monitoring 03, 04)	0	0	0				1,029	210	39				
Synthetic Organic Contaminants (SOCs) (Violation Codes: MCL 01, 02; Monitoring 03, 04)	0	0	0				0	0	0				
Radionuclides (Violation Codes: MCL 01, 02; Monitoring 03, 04)	1	0	1				21	3	3				
Lead and Copper Rule (Violation Codes: Treatment Technique 57, 58, 59, 63, 64, 65; Monitoring 51, 52, 56, 66)				6	1	6	300	87	143				
Consumer Confidence Report Rule (Violation Codes: Reporting 71)										61	49	46	
Public Notification Rule (Violation Codes: Reporting 75)										68	36	29	
		Total Nu	umber c	of Federa	ally Regu	lated P	WSs in A	laska CY	2023:	1,321			
Total Number of PWSs with 1 or mo	ore Viola	tions, <u>43</u>	% of PV	<u>VSs</u> (all r	ules, all v	violation	types as	noted al	bove):	566			
				۲ 	Fotal Nu	mber of	i Violatio	ons in CY	2023:	4,451			
			T	otal Nun	nber of <b>\</b>	/iolatior	ıs resolv	ed in CY	2023:	1,968	;		

\*includes violations that have been resolved or returned to compliance

### DEFINITIONS

Maximum Contaminant Level (MCL) - Under the Safe Drinking Water Act (SDWA), the EPA sets national limits on regulated contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as MCLs.

Treatment Techniques (TT) - For some regulations, the EPA establishes treatment techniques in lieu of MCLs to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, bacteria, and turbidity.

Significant Monitoring Violations - For this report, significant monitoring violations are generally defined as any major monitoring violation that occur during the calendar year of the report. A significant monitoring violation, with rare exceptions, occurs when no samples are taken or no results are reported during a compliance period.

#### NOTES:

1) This report includes only the federal violations specified by EPA guidance. It does not include state violations.

2) This report includes violations that have returned to compliance (RTCd) or were resolved in 2023 as outlined in the report instructions.

## **Enforcement Targeting Tool**

Alaska's DW Program utilizes the EPA's quarterly Enforcement Targeting Tool (ETT) to focus attention on PWSs that, based on the severity and frequency of their violations, are defined as significantly out of compliance with the SDWA requirements.

Throughout CY2023, 188 PWSs appeared on the quarterly list at one time or another, leaving 1,133 or 86%, of Alaska's PWSs not classified as significantly out of compliance (see **Figure 6**). During CY2023, 134 PWSs listed on the ETT took the appropriate steps (such as collecting samples) to return to compliance and were no longer listed on EPA's ETT.

To view a copy of the current quarterly ETT List, a web map detailing the location of PWSs on the current list, resources including guidance on how to read the ETT, how the list is generated, and past ETT lists, see the DW Program's ETT webpage at <a href="https://dec.alaska.gov/eh/dw/ett/">https://dec.alaska.gov/eh/dw/ett/</a>.

## **PWS Compliance with Sanitary Survey Inspection Requirements**

A Sanitary Survey is an on-site inspection of the water system required for PWSs every 3 or 5 years, depending on the system classification. If deficiencies of the water source(s), facilities, equipment, operation, maintenance, or monitoring requirements are found, they are documented during the inspection. In Alaska, these inspections are completed by DEC-Approved Sanitary Survey Inspectors, which includes both DW Program staff and third-party Sanitary Survey Inspectors who are approved by the state but not employed by the State of Alaska.

During CY2023, the DW Program staff completed 69 sanitary surveys while third-party Sanitary Survey Inspectors completed 216 surveys. In 2023, 259 of the 1,321 PWSs in the state were overdue for their sanitary survey, leaving 1,062 systems, or 80% of Alaska's PWSs, in compliance with their Sanitary Survey requirements.

In CY2023, the DW Program held the Basic Sanitary Survey Inspector course in May 2023 which resulted in 18 new Sanitary Survey Inspectors.



Figure 6: Percentage of PWSs Listed on ETT in CY2023

14%

PWSs listed

Students attending Sanitary Survey Inspector course (field portion).

# Boil Water Notices (BWNs)



Figure 7: Alaska DEC Drinking Water Boil Water Notices Web map

In some circumstances, such as the confirmed detection of *E. coli*, inadequate system pressure, or emergency situations like flooding, immediate action is taken by the water system owner or operator due to the pressing threat to public health. For such situations, a Boil Water Notice (BWN) may be required and PWS must notify customers within 24 hours to boil water before use. BWNs remain in effect until the problem has been corrected and the water is determined by the DW Program to be safe to consume (see **Figure 7** for an example of the BWN web map showing distribution of active BWNs). The Alaska DEC Drinking Water Boil Water Notices map is publicly available at the following link: <u>https://dec.alaska.gov/das/gis/apps/</u>.

In CY2023, the DW Program required 118 water systems to post these notices a total of 208 times (206 BWNs / 2 Do Not Drink orders); some water systems were placed on a BWN more than once during the year. This is an increase from last year where 123 systems were placed on BWNs 199 times.

# 6 Drinking Water Program Compliance and Enforcement Activities

In CY2023, DW Program staff continued to take a proactive approach to requiring compliance with drinking water regulations. These activities included phone and email contacts, on-site inspections, meetings with PWS owners and operators, and providing technical assistance as needed. Staff assisted operators with reminder notices of upcoming sampling deadlines to prevent violations before they occurred. DW Program staff routinely provided PWS owners and operators with the necessary forms and information to provide effective and timely notification to their customers regarding the system's drinking water regulation violations.

This continued proactive focus on technical and compliance assistance led to 8,947 compliance assistance actions provided by DW Program staff to Alaska PWSs during CY2023, which is an increase from last year's (CY2022) total of 7,445 compliance assistance actions. In reviewing the previous 5 years of compliance assistance data, this year is above the average of 7,547 compliance actions per year (**Figure 8**).

Once violations have been generated for a particular water system, DW Program staff work diligently to provide the system with straightforward guidelines on how to return to compliance (RTC). While returning to compliance ultimately rests with water system owners and operators, DW Program staff use their knowledge and expertise to provide technical and regulatory assistance to those systems with violations. Once a system takes the necessary steps to address a particular violation or series of violations, DW Program staff document the RTC action. In CY2023, a total of 1,515 RTC actions were entered for 492 systems.

Figure 8: Compliance and Enforcement Actions taken between 2019 and 2023



If a PWS does not RTC in a timely manner, the DW Program uses a progressive enforcement response policy to achieve compliance, beginning with a series of enforcement letters as the first steps towards more formal enforcement. During CY2023, 2,860 informal enforcement actions were taken by the DW Program. If compliance is not achieved promptly, more formal enforcement tools are utilized. An enforcement action is considered formal when the enforcement document is legally binding and includes the ability to impose a monetary fine (i.e., administrative penalty) if compliance is not achieved within the timelines specified by or negotiated with the state.

The most used DW Program formal enforcement action is the Notice of Violation (NOV). For systems which require a longer-term solution to address violations and achieve compliance, the system can enter into a written agreement detailing a timeline of specific actions the system intends to take. This agreement takes the form of a Compliance Order by Consent (COBC).

If the requirements of the NOV or COBC are not met, administrative penalties can be assessed. In CY2023, the DW Program took one (1) formal enforcement action (see **Figure 9** on next page for a summary of compliance and enforcement actions taken in CY2023).

# Figure 9: Summary of Compliance and Enforcement Actions Taken by DW Program Staff in CY2023



# 7 Drinking Water Program Activities

Along with Compliance and Enforcement activities, as described in Section 6, the DW Program is comprised of several other major components as described in this section. The activities support PWS compliance through engineering plan reviews, drinking water protection efforts, collaborating with other drinking water professionals, and updating online services so drinking water information is easily accessible.

# **Engineering Activities**

One of the major components of the DW Program pertains to engineered plan reviews. DW Program staff review submitted engineered plans to determine whether construction approval for building new PWSs or for modifying existing PWSs can be granted. Once construction is completed, additional engineered plans are submitted to the DW Program and reviewed by staff to determine whether interim approval and/or final approval to operate can be issued for a PWS. In 2023, 108 plans received Approval to Construct, 78 plans received Interim Approval to Operate and 105 plans received Final Approval to Operate (see **Figure 10**).

# **Drinking Water Source Protection Activities**

The source of drinking water is a vitally important component of a PWS. DW Protection staff work with the public and other government agencies to provide accurate locational data for wells, intakes, and the respective drinking water source protection areas. This information is used to review and comment on proposed projects occurring throughout Alaska. In addition, DW Protection staff work with communities to promote voluntary protection of their drinking water source.

For further information about DW Protection efforts, please see the DW Program's Drinking Water Protection webpage at <u>https://dec.alaska.gov/eh/dw/dwp/</u>.

In CY2023, DW Protection staff verified or updated 95 source locations (see **Figure 11**), and 89 protection areas were delineated.



# **GIS Mapping Tools**

The first step to protect drinking water from contamination is for the public and government agencies to identify drinking water sources. The DW Protection staff continues to maintain a Geographic Information System (GIS) database of drinking water protection areas for identified PWS sources and provides this data as a web map. In CY2023, two main web maps continued to be maintained, one for the public and one for internal use at the DEC. The internal web map



Thumbnails of some of the DW Program publicly-available web maps.

includes data layers that are not currently available outside the DEC firewall. DW Protection staff consistently utilize a monthly ArcGIS ModelBuilder script for delineating provisional protection areas (with a 1,000-foot buffer) for new sources or updated locations. These provisional areas serve as a temporary means to identify protection zones until a formal delineation, based on site-specific information, can be carried out. Additionally, the staff uses a similar ArcGIS ModelBuilder script every month to identify misaligned protection areas caused by updates in source locations. Consequently, affected delineations are promptly adjusted or re-delineated.

DW Protection staff continually encourage permitting authorities in other DEC Programs and other agencies to use the web maps for identifying proposed activities near PWS sources. The link to the publicly available web maps is https://dec.alaska.gov/das/gis/apps/.

The annual site visits to the public web map displaying drinking water protection areas and well/intake locations decreased from 9,897 (CY2022) to 9,599 (CY2023), totaling 86,185 cumulative visits. The average daily visits decreased slightly from 27 to 26. The DEC web service for Drinking Water Protection Areas continues to be used directly by other agencies including the service in their own specialized web map. For example, the Alaska Department of Natural Resources (DNR) includes this web service in its own web maps when reviewing applications for temporary water usage authorization and water rights. Other agencies utilizing Drinking Water Source Protection Area GIS layers include the State of Alaska Division of Forestry, the Division of Community and Regional Affairs (DCRA), and the United States Forest Service.

The annual site visits to the internal web map displaying drinking water protection areas and well/intake locations decreased from 3,051 (CY2022) to 2,190 (CY2023), totaling 24,115 cumulative visits. The average daily visits decreased from 8/day to slightly over 6/day. In CY2023, DW Protection staff continues to maintain an inventory of all the Endorsed Drinking Water Source Protection Plans and their status. A GIS layer created for this purpose continues to be maintained for this inventory and is included in the Drinking Water Protection public and internal public web maps. The slight decrease in use is likely due to an error in tracking due to the recent switch to ArcGIS Portal and staffing turnover.

#### Figure 12: Count of visits to public web map



Figure 13: Count of visits to internal web map



# 8 Other Programs Related to Public Water Systems

The DW Program is not the only program within the DEC that works with PWSs; many partners assist in achieving the goal of safe drinking water for the residents of and visitors to the State of Alaska. The two programs highlighted on the following pages work closely with the DW Program; however, this is not an all-inclusive list of our partners.

## DEC Environmental Health Laboratory – Water Laboratory Certification Program

The mission of the DEC Environmental Health (EH) Laboratory is to provide analytical and technical information in support of state and national environmental health programs. The laboratory is responsible for certifying commercial and municipal drinking water laboratories for chemical and microbiological testing. The certification process is intended to ensure that laboratories meet the requirements of applicable federal regulations and standards and satisfy the needs of their clients.

## Environmental Health Laboratory in 2023

During CY2023, the EH Laboratory certified 42 unique laboratories for drinking water analysis. 25 certifications for microbiological analysis (including 2 for Cryptosporidium) and 17 certifications for chemical analysis. The EH Laboratory performed a variety of analytical and technical assistance actions. These actions ranged from sending technical assistance emails to full reviews of laboratory Standard Operating Procedures and Quality Assurance Manuals (see **Figure 14**). For more information about the DEC EH Laboratory, please visit the webpage located at <u>https://dec.alaska.gov/eh/lab/</u>.





# DEC Division of Water – Operator Certification Program

PWSs are required to be operated by properly trained and certified operators. An operator must be certified by the department at the same classification level (or higher) as the water system they are operating. The Operator Certification Program is the lead entity within the State of Alaska for certifying both water and wastewater operators as well as classifying water systems based on the system components. This program is charged with developing training programs, administering examinations, and tracking certified operators. The primary services are as follows:

- Develop training curricula, correspondence courses, certification standards, and examination materials for certified drinking water and wastewater system operators.
- Coordinate with PWS owners and notify operators of training opportunities.
- Work with the Alaska Water and Wastewater Advisory Board to establish standards for certifying operators and to adjudicate certification actions.
- Maintain a lending library of reference and training materials for water and wastewater operators.
- Administer certification exams for water and wastewater operators.

For more information about the Operator Certification Program, please visit the webpage at <a href="https://dec.alaska.gov/water/operator-certification/">https://dec.alaska.gov/water/operator-certification/</a>.

# **Operator Certification in 2023**

In the State of Alaska, there are several certification levels for operators, see **Figure 15** for a breakdown by certification level. In CY2023, there were 1,869 active certifications held by 1,506 operators statewide. Many operators hold multiple levels of certification, with Level 4 being the highest and requiring the most education and training.

PWSs also have corresponding classification levels determined by the complexity of the system components, see **Figure 16** (below) for a breakdown of the number of water systems by classification level. Most of the classified systems in Alaska are either small untreated or small treated systems due to the large number of housing subdivisions, trailer courts, and schools having their own water systems.



However, there are also several complex systems requiring operators with advanced levels of certification. To maintain certification, operators are required to complete a minimum number of continuing education hours on an annual basis. Therefore, providing training opportunities is a priority for the Operator Certification Program. In CY2023, 35 courses were approved by the Operator Certification Program, through which operators taking the courses may receive credit for completing the course. Having an appropriately trained and certified operator greatly increases the water system's ability to consistently comply with the SDWA requirements, resulting in fewer violations and safer drinking water.



#### Figure 16: PWSs by Classification Level in CY2023

Figure 15: Water Operator Certificates Active in CY2023

# Attachment 1: MCL and TT Violations for CY2023 Attachment 2: Glossary of Terms

# Attachment 1: Public Water Systems with Maximum Contaminant Level and/or Treatment Technique Violations for CY2023

Bolded system names indicate multiple violations issued for rule during CY2023 PWS in grey highlight have fully resolved or RTCd the violation(s) in 2023

Chemical/Radionuclide Rules Maximum Contaminant Level Exceedance Violation (Violation Code 01, 02)						
		System	Population			
PWSID	Water System Name	Туре	Served	Contaminant		
AK2243658	KB SUB. WATER SERVICE ASSOC.	CWS	170	Arsenic		
AK2226055	PALMER LIFEWAYS DAYCARE	NTNCWS	56	Arsenic		
AK2212623	RADIANT CHURCH - ANCHORAGE	TNCWS	32	Arsenic		
AK2241012	RIVER TERRACE TC	CWS	132	Arsenic		
AK2220483	SET FREE ALASKA SNODGRASS	NTNCWS	47	Arsenic		
AK2340191	WALES WATER SYSTEM	CWS	173	Combined Uranium		

D	Disinfection Byproducts Rule Maximum Contaminant Level Exceedance Violation (Violation Code 02, 11, 13)					
		System	Population			
PWSID	Water System Name	Туре	Served	Contaminant		
AK2300183	CHALKYITSIK VILLAGE WATER	CWS	76	TTHM		
AK2220154	CREEKWOOD PARK WATER SYSTEM	CWS	192	TTHM & HAA5		
AK2340222	DEERING UTILITY SYSTEM	CWS	160	TTHM & HAA5		
AK2270299	EMMONAK WATER SYSTEM	CWS	820	TTHM & HAA5		
AK2360272	GALENA WTP1 - CITY	CWS	490	HAA5		
AK2340214	GOLOVIN COMMUNITY WATER SYSTEM	CWS	150	HAA5		
AK2380214	GULKANA VILLAGE	CWS	90	TTHM		
AK2119205	HECLA GREENS CREEK 920 LEVEL	NTNCWS	175	HAA5		
AK2130067	HOONAH PWS	CWS	980	HAA5		
AK2120224	HYDABURG	CWS	415	HAA5		
AK2130083	KAKE MUNICIPAL WATER	CWS	415	HAA5		
AK2120169	KLAWOCK	CWS	904	HAA5		
AK2340060	KOTZEBUE MUN. WATER SYSTEM	CWS	3234	TTHM & HAA5		
AK2280155	MCGRATH WATER SYSTEM	CWS	341	TTHM		
AK2270207	NUNAM IQUA WATER SYSTEM	CWS	213	TTHM		
AK2121076	POINT HIGGINS ELEMENTARY SCHOOL	NTNCWS	300	HAA5		
AK2340442	SHAKTOOLIK WATER SYSTEM	CWS	270	TTHM		
AK2291130	TATITLEK WATER SYSTEM	CWS	95	TTHM & HAA5		
AK2120012	VALLENAR VIEW MOBILE HOME PARK	CWS	225	TTHM & HAA5		

# Revised Total Coliform Rule Maximum Contaminant Level Exceedance Violation (Violation Code 1A)

		System	Population	
PWSID	Water System Name	Туре	Served	Contaminant
AK2381210	AK GATEWAY SD - TETLIN SCHOOL	NTNCWS	42	RTCR
AK2224159	ALEUTIAN ESTATES #1	CWS	63	RTCR
AK2280066	GRAYLING WATER SYSTEM	CWS	195	RTCR
AK2121123	PORT PROTECTION	CWS	60	RTCR

Disinfection Byproducts Rule Treatment Technique Violation							
	(Violation Code 12, 46)						
		System	Population				
PWSID	Water System Name	Туре	Served	Contaminant			
AK2270299	EMMONAK WATER SYSTEM	CWS	820	<b>Total Organic Carbon</b>			
AK2272004	KOTLIK WATER SYSTEM	CWS	617	Total Organic Carbon			
AK2270207	NUNAM IQUA WATER SYSTEM	CWS	213	Total Organic Carbon			

G	Ground Water Rule Treatment Technique Violation (Violation Code 41, 42, 45, 48)					
		System	Population			
PWSID	Water System Name	Туре	Served	Contaminant		
AK2220251	ALASKA BRAIN CENTER	TNCWS	40	Groundwater Rule		
AK2249042	ALASKA CHRISTIAN COLLEGE	NTNCWS	70	Groundwater Rule		
AK2261240	ALASKA GENERAL SEAFOODS NAKNEK - CANNERY	TNCWS	600	Groundwater Rule		
AK2298608	ALDERWOOD	CWS	175	Groundwater Rule		
AK2300214	AMBLER COMMUNITY WATER SYSTEM	CWS	261	Groundwater Rule		
AK2213904	ASD RAVENWOOD SCHOOL	NTNCWS	472	Groundwater Rule		
AK2249028	ASHTON PARK	CWS	75	Groundwater Rule		
AK2391508	AURORA DENALI LODGE	TNCWS	42	Groundwater Rule		
AK2315146	BADGER ROAD BAPTIST CHURCH	TNCWS	40	Groundwater Rule		
AK2312457	BEAVER LK RESORT / 2521 OUTSIDE BLVD.	CWS	52	Groundwater Rule		
AK2312504	BEAVER LK. RESORT 2545/2555 MISSION	CWS	102	Groundwater Rule		
AK2220439	BELLA VISTA SUBDIVISION	CWS	266	Groundwater Rule		
AK2270346	BETHEL HEIGHTS WATER SYSTEM	CWS	2220	Groundwater Rule		
AK2270401	BETHEL LONGHOUSE HOTEL	TNCWS	90	Groundwater Rule		
AK2216512	BIRCH AND ALDER LLC	TNCWS	51	Groundwater Rule		
AK2310837	BIRCHVIEW PROPERTIES	CWS	41	Groundwater Rule		
AK2391956	BLACK DIAMOND GOLF EMPLOYEE HOUSING	TNCWS	65	Groundwater Rule		
AK2223624	BLUFF VIEW ACRES WATER SYSTEM	CWS	100	Groundwater Rule		
AK2340418	BREVIG MISSION WATER SYSTEM	CWS	395	Groundwater Rule		
AK2262902	BRISTOL BAY NATIVE ASSOC.	NTNCWS	120	Groundwater Rule		
AK2270338	CHEFORNAK WATER SYSTEM	CWS	454	Groundwater Rule		
AK2261444	CHIGNIK LAGOON WATER SYSTEM	CWS	273	Groundwater Rule		
AK2261096	CHIGNIK LAKE WATER SYSTEM	CWS	200	Groundwater Rule		
AK2270312	CITY OF HOOPER BAY	CWS	1200	Groundwater Rule		

## Ground Water Rule Treatment Technique Violation (Violation Code 41, 42, 45, 48)

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		System	Population	
PWSID	Water System Name	Туре	Served	Contaminant
AK2260202	CLARKS POINT WATER SYSTEM	CWS	128	Groundwater Rule
AK2333314	COLDFOOT CAFE	TNCWS	120	Groundwater Rule
AK2280302	CROOKED CREEK WATERING POINT	CWS	147	Groundwater Rule
AK2225989	CROSSROADS CENTER MALL	NTNCWS	50	Groundwater Rule
AK2390586	DENALI - ROCK CREEK HQ.	CWS	220	Groundwater Rule
AK2390641	DENALI - SAVAGE RIVER CMPGRND.	TNCWS	72	Groundwater Rule
AK2390918	DENALI CROWS NEST	TNCWS	132	Groundwater Rule
AK2391443	DENALI RV PARK & MOTEL	TNCWS	175	Groundwater Rule
AK2372677	DGSD - DELTA ELEMENTARY SCHOOL	NTNCWS	233	Groundwater Rule
AK2260197	DILLINGHAM WATER SYSTEM	CWS	2419	Groundwater Rule
AK2380620	DOT & PF TOK COMBINED FACILITY	TNCWS	26	Groundwater Rule
AK2262238	EGEGIK	CWS	485	Groundwater Rule
AK2314938	FAIRHILL CHRISTIAN SCHOOL	NTNCWS	150	Groundwater Rule
AK2312164	FNSB BIRCH HILL WARMUP BUILDING	TNCWS	50	Groundwater Rule
AK2210794	FOREST PARK TC	CWS	175	Groundwater Rule
AK2226339	FOUR CORNERS LOUNGE	TNCWS	33	Groundwater Rule
AK2263061	HEART OF THE SHIRE	TNCWS	79	Groundwater Rule
AK2212461	HILLSIDE PARK S/D	CWS	144	Groundwater Rule
AK2215566	HOMER DRIVE APTS.	CWS	50	Groundwater Rule
AK2211897	KATHY O ESTATES	CWS	242	Groundwater Rule
AK2340230	KIANA WATER SYSTEM	CWS	455	Groundwater Rule
AK2260040	KOLIGANEK WATER SYSTEM	CWS	170	Groundwater Rule
AK2271732	KSD ANIAK SECONDARY SCHOOL	NTNCWS	80	Groundwater Rule
AK2272751	KSD UPPER KALSKAG PRIMARY SCHOOL	NTNCWS	50	Groundwater Rule
AK2260634	L&PSD NEWHALEN SCHOOL	NTNCWS	85	Groundwater Rule
AK2261575	L&PSD PORT ALSWORTH SCHOOL	NTNCWS	80	Groundwater Rule
AK2370879	LARRYS APARTMENTS	CWS	44	Groundwater Rule
AK2226017	LITTLE FRIENDS CHILDCARE	NTNCWS	47	Groundwater Rule
AK2270972	LKSD MEKORYUK NUNIVAARMIUT SC	NTNCWS	67	Groundwater Rule
AK2271017	LKSD TUNTUTULIAK ANGAPAK SC	NTNCWS	101	Groundwater Rule
AK2270697	LOWER KALSKAG WATER SYSTEM	CWS	302	Groundwater Rule
AK2262246	MANOKOTAK HEIGHTS W/S	CWS	215	Groundwater Rule
AK2260090	MANOKOTAK WATER SYSTEM	CWS	293	Groundwater Rule
AK2390447	MCKINLEY CREEKSIDE CABINS	TNCWS	115	Groundwater Rule
AK2220037	MEADOW BROOK SUBDIVISION	CWS	465	Groundwater Rule
AK2300159	MINTO COMMUNITY WATER SYSTEM	CWS	205	Groundwater Rule
AK2227262	MOM & POPS 4 CORNERS PLAZA	TNCWS	270	Groundwater Rule
AK2390269	MONROES MONDEROSA	TNCWS	78	Groundwater Rule
AK2225988	MOUNTAIN ASH BUSINESS PARK	TNCWS	95	Groundwater Rule
AK2270150	MOUNTAIN VILLAGE WATER SYSTEM	CWS	850	Groundwater Rule
AK2223616	MSBSD BIG LAKE ELEM #2 NEW	NTNCWS	365	Groundwater Rule

G	Ground Water Rule Treatment Technique Violation (Violation Code 41, 42, 45, 48)					
PWSID	Water System Name	System Type	Population Served	Contaminant		
AK2223023	MSBSD CAREER CENTER	NTNCWS	575	Groundwater Rule		
AK2225165	MSBSD KNIK-GOOSE BAY ELEM.	NTNCWS	897	Groundwater Rule		
AK2226452	MSBSD SNOWSHOE ELEMENTARY	NTNCWS	427	Groundwater Rule		
AK2381016	NAABIA NIIGN NORTHWAY	TNCWS	25	Groundwater Rule		
AK2262319	NAPAKIAK W.S. CENTRAL WELL	CWS	330	Groundwater Rule		
AK2262301	NAPAKIAK WASHETERIA	TNCWS	365	Groundwater Rule		
AK2260139	NAPASKIAK WEST WATER SYSTEM	CWS	200	Groundwater Rule		
AK2271721	NIGHTMUTE NEW WATERING POINT	CWS	243	Groundwater Rule		
AK2241020	NIKISHKA BAY	CWS	470	Groundwater Rule		
AK2263010	NINA NICHOLSON SUBDIVISION	CWS	31	Groundwater Rule		
AK2260820	NUNAPITCHUK WATER SYSTEM	CWS	496	Groundwater Rule		
AK2272752	OLD KASIGLUK - AKIUK	CWS	240	Groundwater Rule		
AK2211473	PETERS CREEK TERRACE	CWS	70	Groundwater Rule		
AK2360816	RAMPART WASHETERIA	CWS	88	Groundwater Rule		
AK2227301	RAYS CHILD CARE LEARNING	NTNCWS	80	Groundwater Rule		
AK2250396	RENDEZVOUS	TNCWS	56	Groundwater Rule		
AK2312415	SALCHA COMMUNITY WATERING POINT	CWS	508	Groundwater Rule		
AK2210891	SNOWCREST VIEW SOUTH	CWS	25	Groundwater Rule		
AK2380387	SOURDOUGH CAMPGROUND / RV PARK	TNCWS	69	Groundwater Rule		
AK2211091	SOUTH PARK ESTATE TC	CWS	175	Groundwater Rule		
AK2360442	STEVENS VILLAGE WATER SYSTEM	CWS	28	Groundwater Rule		
AK2211376	SUNSET HILL BAPTIST CHURCH	TNCWS	127	Groundwater Rule		
AK2261193	TRIDENT SEAFOODS CORP. AKUTAN	NTNCWS	1400	Groundwater Rule		
AK2271114	TUNDRA WOMENS COALITION	TNCWS	48	Groundwater Rule		
AK2271211	TUNTUTULIAK WASHETERIA AND WATERING PT	CWS	350	Groundwater Rule		
AK2271790	UNITED PENTECOSTAL CHURCH	TNCWS	121	Groundwater Rule		
AK2250605	USCG BEAR VALLEY GOLF COURSE	TNCWS	59	Groundwater Rule		
AK2250126	USCG STATION KODIAK	CWS	3092	Groundwater Rule		
AK2260553	USNPS KATMAI BROOKS CAMP	TNCWS	350	Groundwater Rule		
AK2220094	UTOPIA MEADOWS SD	CWS	232	Groundwater Rule		
AK2250493	VFW KODIAK POST #7056	TNCWS	46	Groundwater Rule		
AK2340191	WALES WATER SYSTEM	CWS	173	Groundwater Rule		
AK2218824	WENDY'S OLD SEWARD	TNCWS	415	Groundwater Rule		
AK2262571	WINDMILL GRILLE	TNCWS	85	Groundwater Rule		

# Lead and Copper Rule Treatment Technique Violation (Violation Code 57, 58, 59, 63, 64, 65)

		System	Population	
PWSID	Water System Name	Туре	Served	Contaminant
AK2271732	KSD ANIAK SECONDARY SCHOOL	NTNCWS	80	Lead and Copper Rule
AK2225995	OMEGA BUILDING	NTNCWS	137	Lead and Copper Rule
AK2220483	SET FREE ALASKA SNODGRASS	NTNCWS	47	Lead and Copper Rule
AK2271211	TUNTUTULIAK WASHETERIA AND WATERING PT	CWS	350	Lead and Copper Rule
AK2310926	VALLEY WATER COMPANY	CWS	1575	Lead and Copper Rule
AK2226428	VIOLET CIRCLE WATER COMPANY	CWS	35	Lead and Copper Rule

Rev	Revised Total Coliform Rule Treatment Technique Violation (Violation Code 2A, 2C, 2D)					
		System	Population			
PWSID	Water System Name	Туре	Served	Contaminant		
AK2270427	AC ALASKA COMMERCIAL STORE	NTNCWS	475	RTCR		
AK2224159	ALEUTIAN ESTATES #1	CWS	63	RTCR		
AK2244808	ALPINE INN	TNCWS	30	RTCR		
AK2241567	CAMP K ON KENAI LAKE CAMP FIRE ALASKA	TNCWS	120	RTCR		
AK2213140	CREEKWOOD INN AND RV PARK	TNCWS	107	RTCR		
AK2249701	DIAMOND-M RV PARK	TNCWS	38	RTCR		
AK2270299	EMMONAK WATER SYSTEM	CWS	820	RTCR		
AK2210794	FOREST PARK TC	CWS	175	RTCR		
AK2121501	GEORGE INLET CANNERY	TNCWS	24	RTCR		
AK2280066	GRAYLING WATER SYSTEM	CWS	195	RTCR		
AK2249994	JERSEY SUBS KASILOF	TNCWS	42	RTCR		
AK2263066	KAKO RETREAT CENTER	TNCWS	122	RTCR		
AK2244442	KENAI RIVERSIDE LODGE	TNCWS	52	RTCR		
AK2246020	KENAI RIVERSIDE RV PARK	TNCWS	70	RTCR		
AK2299036	KING FOR A DAY	TNCWS	53	RTCR		
AK2270833	KSD GEORGE MORGAN HIGH SCHOOL	NTNCWS	50	RTCR		
AK2261224	KULIK LODGE KATMAILAND	TNCWS	53	RTCR		
AK2262474	LFS NAKNEK MARINE CENTER	TNCWS	50	RTCR		
AK2245090	LIGHTHOUSE COMMUNITY CHURCH	TNCWS	59	RTCR		
AK2223454	LITTLE BEAVER CAMP MAIN QTRS	TNCWS	208	RTCR		
AK2271721	NIGHTMUTE NEW WATERING POINT	CWS	243	RTCR		
AK2244858	NORTH STAR U. METHODIST CHURCH	TNCWS	65	RTCR		
AK2121123	PORT PROTECTION	CWS	60	RTCR		
AK2111564	PYBUS POINT LODGE	TNCWS	44	RTCR		
AK2249256	RW BIG EDDY RESORT	TNCWS	70	RTCR		
AK2280040	SHAGELUK WATER SYSTEM	CWS	60	RTCR		
AK2241070	SUMMIT LAKE LODGE	TNCWS	707	RTCR		
AK2271211	TUNTUTULIAK WASHETERIA AND WATERING PT	CWS	350	RTCR		
AK2133333	WHALERS COVE LODGE	TNCWS	65	RTCR		

	Surface Water Treatment Rules Treatment Technique Violation					
	(Violation Code 33, 37, 40, 41, 42					
		System	Population			
PWSID	Water System Name	Туре	Served	Contaminant		
AK2260595	ADAK UTILITIES	CWS	325	SWTR		
	ALASKA WILDLIFE CENTER	TNCWS	1020	SWTR		
	BUCKLAND WATER SYSTEM	CWS	600	SWTR		
	CHALKYITSIK VILLAGE WATER	CWS	76	SWTR		
	CHENEGA	CWS	50	SWTR		
AK2120020	CLOVER PASS RESORT	TNCWS	133	SWTR		
AK2340141	DIOMEDE JOINT UTILITIES	CWS	184	SWTR		
AK2340345	ELIM WATER SUPPLY	CWS	320	SWTR		
AK2262199	FALSE PASS TREATMENT PLANT	CWS	393	SWTR		
AK2300272	HUGHES PUBLIC WATER SUPPLY	CWS	107	SWTR		
AK2220692	ISLANDER BAR & RESTAURANT	TNCWS	38	SWTR		
AK2360141	KALTAG PUBLIC WATER SYSTEM	CWS	214	SWTR		
AK2250087	KARLUK WATER SYSTEM	CWS	60	SWTR		
AK2340117	KIVALINA WATER SYSTEM	CWS	452	SWTR		
AK2340060	KOTZEBUE MUN. WATER SYSTEM	CWS	3234	SWTR		
AK2272017	KWETHLUK NEW PIPED WATER SYSTEM	CWS	760	SWTR		
AK2270964	LKSD KWIGILLINGOK HS & ELEM	NTNCWS	117	SWTR		
AK2271874	NATIVE VILLAGE OF SLEETMUTE	CWS	82	SWTR		
AK2331184	NORTH SLOPE BOROUGH SA 10	NTNCWS	100	SWTR		
AK2250061	OLD HARBOR	CWS	246	SWTR		
AK2250053	OUZINKIE WATER SYSTEM	CWS	144	SWTR		
AK2261216	PETER PAN SEAFOOD PORT MOLLER	TNCWS	140	SWTR		
AK2271059	PLATINUM CITY WATER SYSTEM	CWS	51	SWTR		
AK2250045	PORTLIONS	CWS	175	SWTR		
AK2121123	PORT PROTECTION	CWS	60	SWTR		
AK2271041	QUINHAGAK WATER SYSTEM	CWS	724	SWTR		
AK2270184	SCAMMON BAY WATER SYSTEM	CWS	637	SWTR		
AK2340379	SELAWIK SAFEWATER FACILITY	CWS	846	SWTR		
AK2340361	SHUNGNAK WATER SYSTEM	CWS	299	SWTR		
AK2121463	SILVERKING LODGE	TNCWS	46	SWTR		
AK2291130	TATITLEK WATER SYSTEM	CWS	95	SWTR		
AK2360109	TOO'GHA INC - IN TANANA	CWS	271	SWTR		
AK2262351	TRIDENT SEAFOODS INC. SAND PT	NTNCWS	400	SWTR		
AK2340387	UNALAKLEET CITY WATER SUPPLY	CWS	757	SWTR		
AK2120012	VALLENAR VIEW MOBILE HOME PARK	CWS	225	SWTR		
AK2300248	VENETIE WATER SYSTEM	CWS	181	SWTR		
	YKSD - ALLAKAKET SCHOOL	NTNCWS	52	SWTR		

#### **Annual Compliance Report**

The Annual Compliance Report is an annual report of violations of the primary drinking water standards that the states provide to EPA. The ACR is required by Section 1414(c)(3) of the Safe Drinking Water Act Amendments of 1996. The basis of this report comes from data primarily retrieved from the Safe Drinking Water Information System (SDWIS/FED), an automated database maintained by EPA. SDWIS/FED is populated by data submitted by primacy states each quarter. The data submitted includes, but is not limited to, PWS inventory information; violations of the Maximum Contaminant Level (MCL), Maximum Residual Disinfectant Level (MRDL), monitoring requirements, and Treatment Technique (TT) requirements; and information on enforcement activity related to these violations. The ACR also provides the numbers of violations in each of six categories: MCL, MRDL, TT, variances and exemptions, significant monitoring violations, and significant consumer notification violations.

#### **Consumer Notification (Consumer Confidence Reports - CCR)**

For purposes of this report, consumer notification means the requirement for every Community Water System to deliver to its customers a brief annual water quality report, called the Consumer Confidence Report (CCR). The CCR is to include some educational material, and to provide information on the source water, the levels of any detected regulated contaminants, and compliance with drinking water regulations for that public water system.

#### Groundwater (GW) Source

Groundwater source means water, used by a public water system for providing water to its customers, that is obtained from beneath the surface of the ground (in an aquifer) and is protected—by depth, geological stratification, or other factors—from contamination by pollutants and microorganisms that originate on the surface. These systems are subject to the Ground Water Rule.

#### Groundwater Under the Direct Influence of Surface Water (GWUDISW) Source

GWUDISW source refers to water, used by a public water system for providing water to its customers, obtained from beneath the surface of the ground but not protected from contamination originating on the surface. A GWUDISW source may have a significant occurrence of microorganisms, algae, or other pathogens such as *Giardia lamblia* or *Cryptosporidium parvum*, or may experience significant shifts in water characteristics that closely resemble surface water conditions. These systems are subject to each of the surface water treatment rules.

#### Maximum Contaminant Level (MCL)

MCL means the maximum permissible level of a contaminant in water that is delivered to any user of a public water system. This level is a national limit set by the EPA, as required under the Safe Drinking Water Act (SDWA), to ensure that the water is safe for human consumption.

#### Maximum Residual Disinfectant Level (MRDL)

MRDL means the maximum level of disinfectant in drinking water that may not be exceeded without an unacceptable possibility of adverse health effects. The EPA sets national limits on residual disinfectant levels in drinking water to reduce the risk of exposure to disinfectants and disinfection byproducts that are formed when PWSs add chemical disinfectants for either primary or residual treatment.

#### Monitoring

Monitoring means doing a status check of the system's water quality at regular intervals, usually through collecting a water sample and having a laboratory analyze the sample for a given contaminant. A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the corresponding MCL. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agency (EPA, state, territory, or tribe), a monitoring violation occurs.

#### Primacy

Primacy means the delegating of primary enforcement authority of the Safe Drinking Water Act requirements and federal rules by the EPA to states, territories, and Indian tribes for public water systems in their state jurisdiction if they meet certain requirements.

#### Public Water System (PWS)

A PWS is a system that provides water for human consumption, using piping or other constructed conveyances, to at least 15 service connections or that serves an average of at least 25 people for at least 60 days each year. There are three types of PWSs: Community (such as a municipal water utility or at a residential subdivision), Non-Transient Non-Community (such as at schools or factories), and Transient Non-Community (such as at restaurants, lodges, and seasonal state and federal parks). In this report, the acronym "PWS" means systems of all three types unless specified in greater detail.

#### Sanitary Survey

A sanitary survey is a regulatory on-site inspection of the water sources, facilities, equipment, operation and maintenance, and monitoring compliance of a public water system for the purpose of evaluating the adequacy of the components for producing and distributing safe drinking water. Sanitary surveys are required every 3 years for Community Water Systems and every 5 years for Non-Community Water Systems. Each primacy agency (EPA, state, territory, or tribe) is responsible for implementing a Sanitary Survey Program. The State of Alaska has a training and approval program that allows non-State employees to become Approved Sanitary Survey Inspectors. This is unique to the Alaska Drinking Water Program, as most primacy agencies (states) in general have sanitary surveys completed by state or local government employees or paid government contractors.

#### **Significant Consumer Notification Violations**

For purposes of this report, a significant consumer notification violation is the failure of a Community Water System to provide its customers with the required annual water quality report (CCR), which results in a significant violation of public notification requirements.

### Surface Water Source

Surface water source refers to water, used by a public water system for providing water to its customers, open to the atmosphere and subject to surface runoff. Surface water sources include rivers, lakes, and streams. These systems are subject to each of the surface water treatment rules.

### Treatment Technique (TT)

Treatment technique is a method for either inactivating or removing a contaminant to reduce the level of that contaminant sufficiently to satisfy an MCL. For some regulations, the EPA has established treatment technique requirements in lieu of MCLs to control unacceptable levels of certain contaminants, such as viruses, bacteria, and turbidity.

### Variances and Exemptions

Variances and exemptions are exceptions to certain elements of a National Primary Drinking Water Regulation, agreed upon by the primacy agency and the public water system, that allow a system that cannot meet the MCL or treatment technique requirement of a regulation to continue operation without receiving a violation of that requirement while working towards full compliance. There are specific circumstances and procedures set out in SDWA §1415 and §1416. Currently, the State of Alaska grants an exemption for one chemical contaminant (arsenic) and a variance for total coliform, that extends the sample hold time from 30 hours to 48 hours under specific circumstances (remote locations).

