



Alaska Department of
Environmental Conservation
Division of Environmental Health
Drinking Water Program

Background Image: Glacier Bay National Park, Alaska (Courtesy of: National Park Service)

Annual Compliance Report

State of Alaska
2016

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Message from the Drinking Water Program Manager



The Drinking Water (DW) Program of the Alaska Department of Environmental Conservation (DEC) has a mission to protect the health of the people of Alaska by establishing, maintaining, and enforcing standards for safe and reliable drinking water. This report provides information on how well public water systems in Alaska are meeting the standards for providing safe drinking water. It also provides information on the DW Program's roles and responsibilities as well as information about significant projects for the 2016 calendar year (CY).

Each state is required to produce and submit a similar annual report to the Environmental Protection Agency (EPA). The reports are made available to the public, and the data is included in a national report summarizing the performance of the nation's public water systems (PWS). This report fulfills that requirement.

During 2016, the main focus of the DW Program was to continue to provide a high level of technical and compliance assistance to the owners and operators of public water systems in Alaska. We believe that providing this assistance leads to improved public health outcomes. This year, staff provided over 8,800 compliance and technical assistance actions, which had a direct impact on the number of public water systems in compliance with all drinking water regulations. One of the major assistance efforts was providing each public water system with a comprehensive Monitoring Summary early in the calendar year. The Monitoring Summary is a helpful tool for PWSs to schedule required testing and to budget the necessary funds to remain in compliance.

Beginning in the fall of 2014, the DW Program began to prepare to adopt the EPA's Revised Total Coliform Rule (RTCR). An extension agreement was filed with EPA in December 2014 and approved in February 2015, granting the state until February 2017 to adopt the rule. Implementation activities for the RTCR continued in 2016, and the DW Program was in a position to fully implement the rule when it became effective in April 2016. The DW Program also continued to work on the process of full adoption of the RTCR in 2016 (the State was granted interim primacy in February 2017). To assist PWS owners and operators with preparing for the RTCR, staff developed an RTCR page on the DW Program website, which contains information, forms, and checklists pertinent to the RTCR: <http://dec.alaska.gov/eh/dw/rtrc.html>.

In response to the lead crisis in Flint, Michigan, EPA in 2016 required state primacy agencies to provide an increased level of oversight for public water systems that exceeded the lead action level (AL). During 2016, the DW Program provided a high level of compliance and technical assistance to water systems to select proper sample sites, determine if systems were currently exceeding the lead AL, and to determine the type of treatment or other mitigation needed by the system. The DW Program also initiated several projects designed to address lead AL exceedances in small systems. One project involved faucet replacement in all occupied homes in three small communities. An additional project initiated in 2016 involved partnering with the Alaska Department of Health and Social Services, Epidemiology Section, to collect water samples and blood samples from children in two Alaskan communities that have experienced lead AL exceedances over a prolonged period of time. This project will continue in 2017.

In 2016, the DW Program facilitated five Groundwater Protection and Water Wells Stakeholder workgroup meetings for continued awareness of groundwater protection and the ongoing need for open discussions on the issues and concerns regarding water wells and perceived impacts to groundwater resources. The Stakeholder workgroup consists of PWS owners and operators, state agency representatives, and water well contractors. The workgroup developed and published two separate Best Management Practices (BMP) documents designed for Alaskans who use, provide access to, or otherwise have a vested interest in Alaska's groundwater quality and quantity, with the intent of protecting our shared resource through proper construction, maintenance, and decommissioning of groundwater wells.

Both BMP's, 1) Maintaining or Decommissioning Water Wells and Boreholes, and 2) Construction of Non-Public Water Wells, are available at <http://dec.alaska.gov/eh/dw/dwp/dwp-private-wells.html>.



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Definition of a Public Water System



Public Water System

A **Public Water System (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. A public water system is further classified as either a community water system or a non-community water system.

Community Water System

Community Water Systems (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. Examples of CWSs include a municipal water system serving a town or village, or a mobile home park.

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):

Non-Transient Non-Community Water System

Non-Transient Non-Community Water Systems (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

Transient Non-Community Water Systems (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.



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 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.

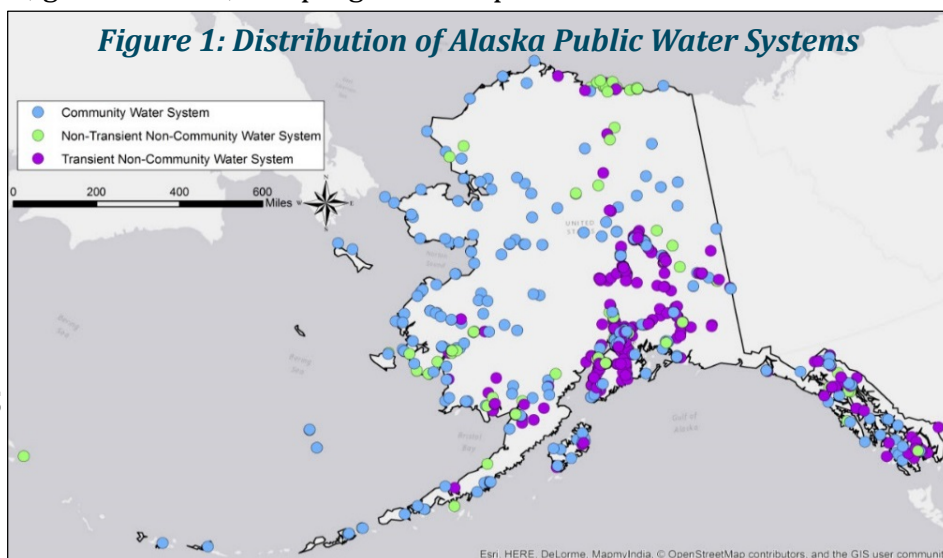
The PWSS Program is designed to supervise the implementation of the SDWA requirements for PWSs. The SDWA allows states, territories, and tribes to seek primacy, which is approval from EPA to administer and enforce the PWSS Program within their state, territory, or tribe. States must meet specific requirements 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. Alaska is one of the 56 states, territories, and tribes that have primacy.

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Alaska Drinking Water Program Components

The Alaska DW Program is comprised of 50 staff positions that operate out of 5 offices located around the state, including Anchorage, Fairbanks, Juneau, Soldotna, and Wasilla. Collectively, the offices are responsible for regulating 1,447 PWSs serving the visitors and residents of the State of Alaska (see **Figure 1** for distribution of water systems across Alaska). Funding for the 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 Assessments), Capacity Development, and PWSS 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 (below) and are described in further detail starting on page 12. However, compliance and enforcement activities are just two of the many activities of a comprehensive state drinking water program.

The major components and activities of Alaska’s DW Program are listed below:

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.

On-site Inspections

- Complete sanitary survey inspections at PWSs every 3 or 5 years.
- 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 from the public.
- Provide technical assistance to PWSs during disaster events.

Engineered Plans

- Review engineered plans for new and modified PWSs, and issue construction approvals to systems that meet minimum requirements.
- Review engineered plans for constructed 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.

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 DW Protection areas.
- Encourage responsible drinking water source protection and drinking water protection planning efforts for PWSs.

Public Water System Security

- Assist PWS owners and operators in conducting vulnerability assessments and writing emergency preparedness plans for their water systems.
- Provide information and training to PWS owners, operators, and DW Program staff on emergency preparedness topics.
- Coordinate the DW Program Field Response Team, a group of DW Program staff with specialized training, for responding to PWS emergencies.

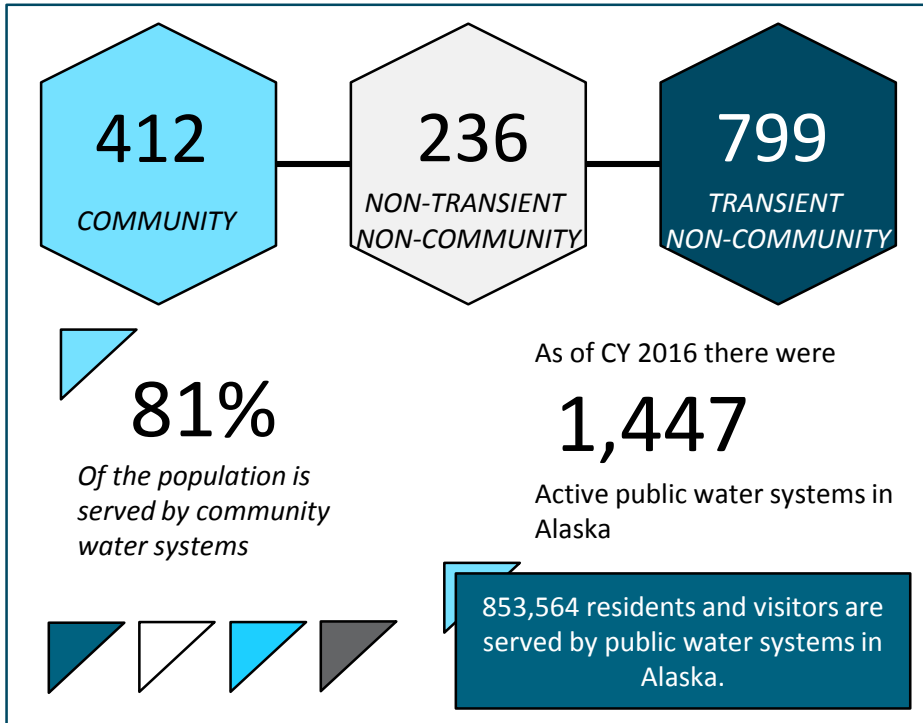
General Program Activities

- 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 Electronic Data Reporting System (EDRS), the Electronic Sanitary Survey (ESS), Drinking Water Watch, the Drinking Water Protection database, and the Engineering Submittal Tracking database.
- Implement the Sanitary Survey Inspector 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.

Alaska's Public Water Systems

During CY 2016, there were 1,447 active PWSs in Alaska: 412 Community Water Systems (CWS); 236 Non-Transient Non-Community (NTNC) Water Systems; and 799 Transient Non-Community (TNC) Water Systems (see **Figure 2**).

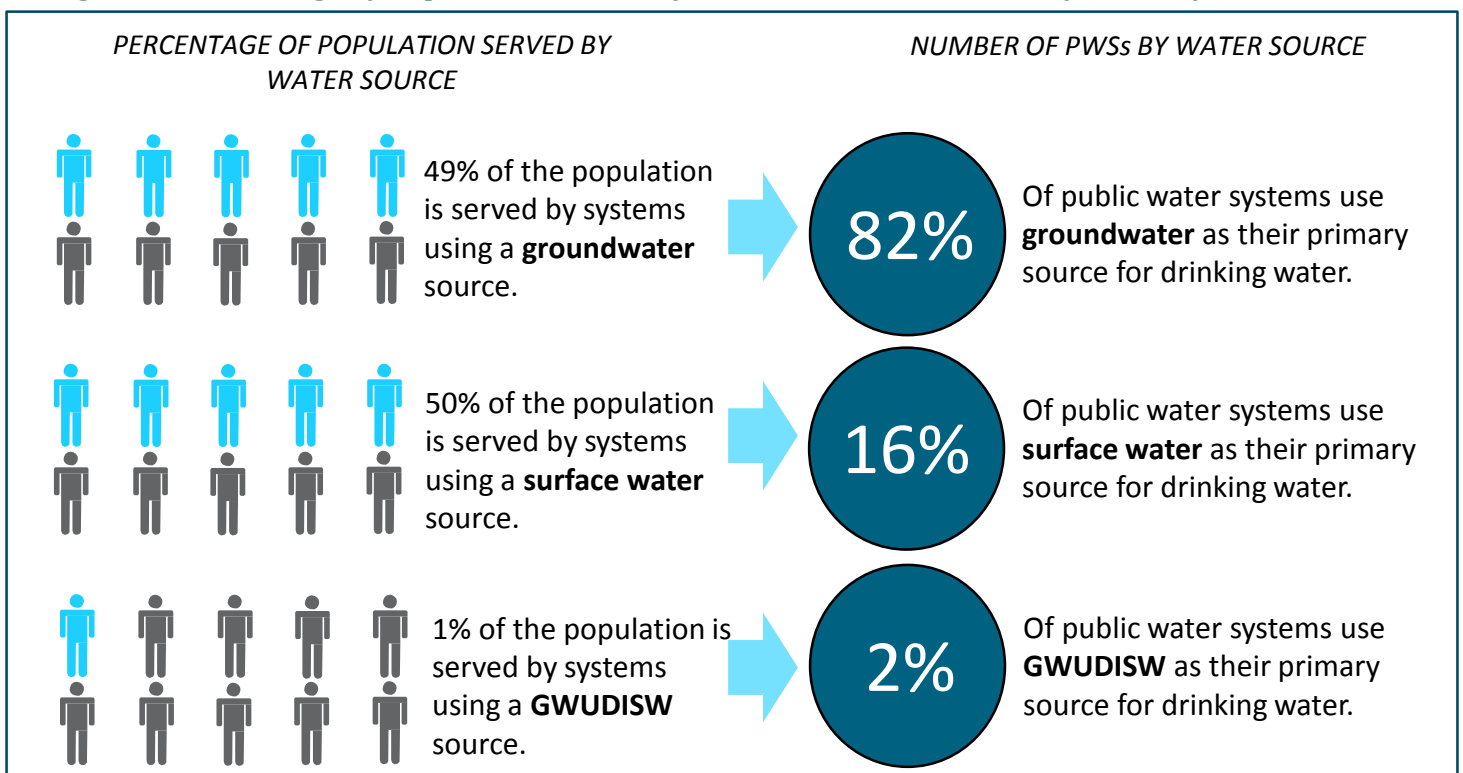
Figure 2: Number of Public Water Systems



These 1,447 PWSs served a combined population of 853,564 residents of and visitors to the State of Alaska. While there are a greater number of systems classified as Transient Non-Community water systems, the majority of the population in Alaska is served from a Community Water System.

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



Analysis of Compliance for Alaska Public Water Systems 2016

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 CY 2016, no waterborne diseases were reported from Alaska PWSs; however, a number of violations were issued. A total of 5,447 federal violations were issued to 688 PWSs (or 48%) in Alaska, leaving 759 PWSs (or 52%) violation-free (see **Figure 4**). Monitoring and Reporting violations continue to be the most common violations, making up 84% of all violations issued to PWSs in Alaska during CY 2016 (see **Figure 5**). The 5,447 violations issued to PWSs across the state in CY 2016 is an increase in the number of violations compared to CY 2015, when 4,186 violations were issued. This increase can be attributed primarily to Synthetic Organic Contaminant (SOC) monitoring violations. In CY 2016, 38% of all monitoring violations were for a lack of monitoring for SOC. The 1,740 SOC violations were issued to only 32 PWSs. The SOC group contains 30 different contaminants that are analyzed, so each time sampling is missed, 30 violations are issued to the water system. A system that missed all 4 quarters of its required sampling would end up with 120 SOC violations. SOC are one of the contaminant groups for which a PWS can apply to the state to obtain a waiver from collecting samples. The waiver application is reviewed, and if it is determined the system has a low probability of SOC contamination, the monitoring requirement can be waived for the 3-year monitoring period. Typically, at the end of each monitoring period, there is a spike in violations for those systems that did not turn in the waiver applications on time or monitor as required. The 2016 increase in violations coincides with the 2014-2016 SOC Waiver period.

Figure 4: PWSs by Violation Status in CY 2016

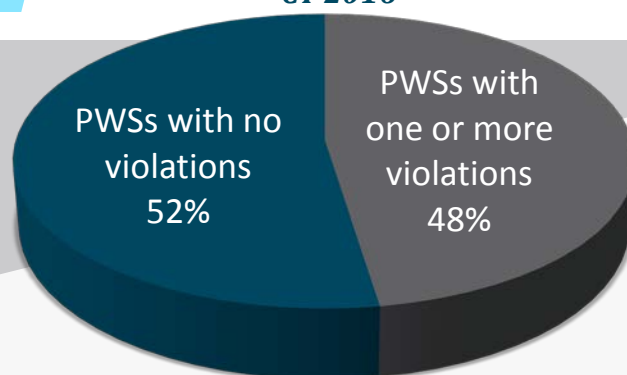
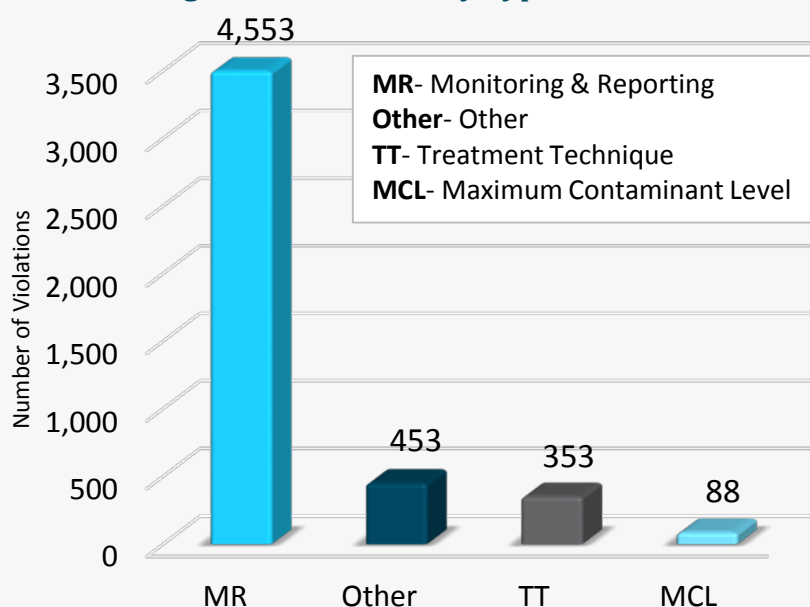


Figure 5: Violations by Type in CY 2016



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

Throughout CY 2016, 237 PWSs appeared on this quarterly list at one time or another, leaving 1,210, or 84%, of Alaska's PWSs not classified as significantly out of compliance (see **Figure 6**).

During CY 2016, 147 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.

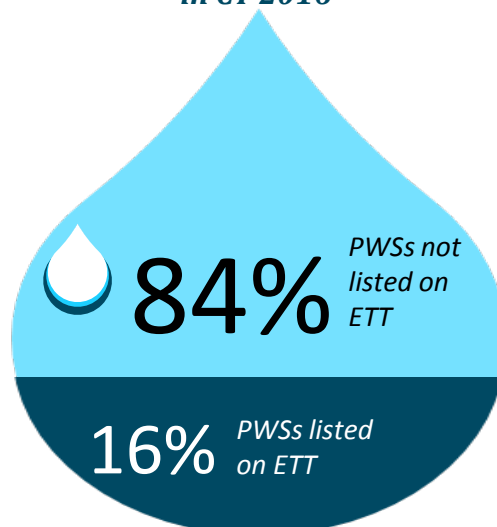
For further information about the ETT List or to view a copy of the current quarterly ETT List, please see the DW Program's ETT webpage at <http://dec.alaska.gov/eh/dw/dwmain/SNC.htm>.

Further details on violations issued to Alaska PWSs during CY 2016 are specified on Attachments 1 and 2 of this report; the attachments are described in detail below:

Attachment #1 is a one-page summary showing the types of violations, organized by federal rule, that were issued to Alaska PWSs in CY 2016 (see page 20).

Attachment #2 is the list of PWSs that received MCL and/or Treatment Technique (TT) violations during CY 2016 (see page 21).

Figure 6: Percentage of PWSs Listed on ETT in CY 2016



Sanitary Survey Compliance

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 CY 2016, DW Program staff completed 81 sanitary surveys while third-party Sanitary Survey Inspectors completed 251 surveys. By December 2016, only 77 of the 1,447 PWSs in the state were overdue for their sanitary survey, leaving 1,370 systems, or 95% of Alaska's PWSs, in compliance with their Sanitary Survey requirements.



Drinking Water Program staff conducting sanitary surveys.

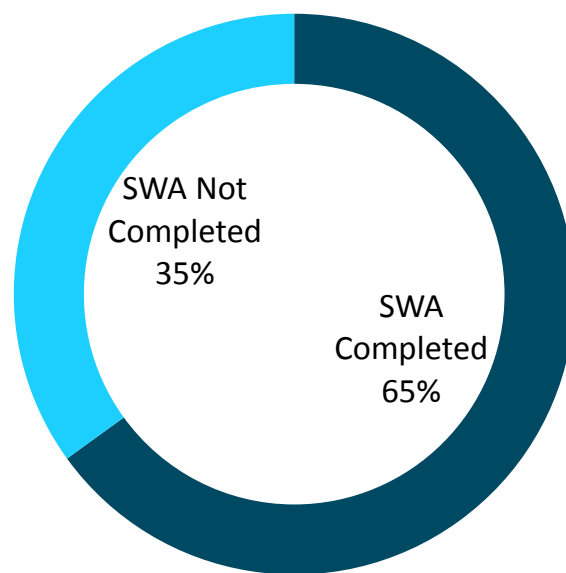
Drinking Water Program Activities in 2016



Drinking Water Protection Activities

The source of drinking water is a vitally important component of a PWS. DW Program staff work with communities to provide information about the vulnerability to contamination of their source water through Source Water Assessment (SWA) Reports and by promoting voluntary protection efforts of their source of drinking water. Completing initial SWA Reports and updating the reports when additional sources are added or when changes to the PWS occur are ongoing efforts. In CY 2016, 10 SWA Reports were completed. In addition to the SWA Reports, staff completed 72 Delineations of Protection Areas, 14 Contaminant Source Inventories, 11 Vulnerability Analyses, and 131 Source Location Verifications. Approximately 506 active drinking water sources for public water systems (156 CWSs, 104 NTNCs, and 246 TNCs) have not received a SWA (see **Figure 7**). For further information about Drinking Water Protection efforts, please see the DW Program's Drinking Water Protection webpage at http://dec.alaska.gov/eh/dw/DWP/DWP_Overview.html.

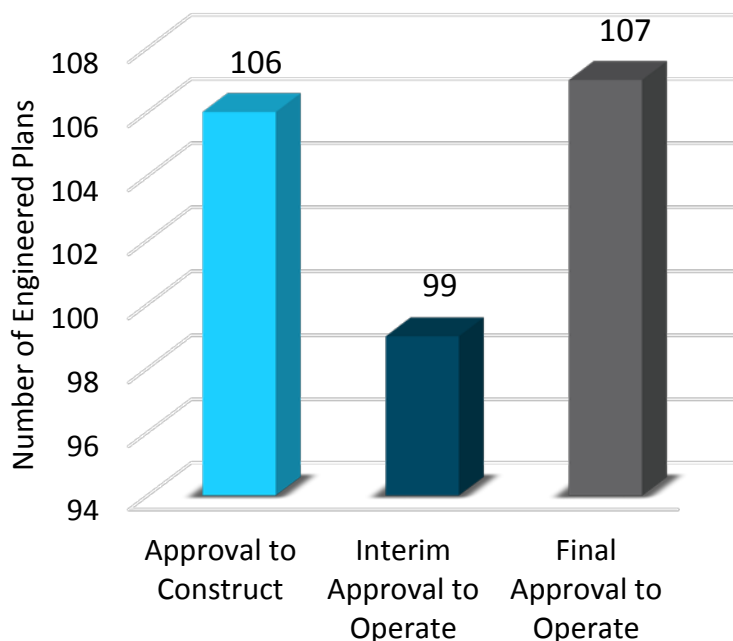
Figure 7: Percentage of PWSs with Source Water Assessment Completed



Engineering Activities

One of the compliance and enforcement responsibilities 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 2016, 106 plans received Approval to Construct, 99 plans received Interim Approval to Operate, and 107 plans received Final Approval to Operate (see **Figure 8**).

Figure 8: Status of Engineered Plans in CY 2016



Drinking Water Program Compliance and Enforcement Activities



In CY 2016, DW Program staff continued to take a proactive approach to requiring compliance with drinking water regulations. These activities included phone 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 in an attempt to prevent violations before they occurred. DW Program staff routinely provided PWS owners and operators with the necessary forms and information to effectively notify their customers about violations of the drinking water regulations by their system in a timely manner. The method of public notification varied by the violation and system type, and the water system owners were required to report to the DW Program on how the public notice was performed. Some circumstances, such as the confirmed detection of fecal coliform bacteria or *E. coli*, inadequate system pressure, or emergency situations like flooding, warranted immediate action by the water system owner or operator due to the pressing threat to public health. For such acute violations, the DW Program requires systems to notify customers within 24 hours to boil water before use. Boil Water Notices (BWNs) remain in effect until the problem has been corrected and the water is determined by the DW Program to be safe to consume. In CY 2016, the DW Program required 82 water systems to post these notices a total of 104 times; some water systems were placed on a BWN more than once during the year.

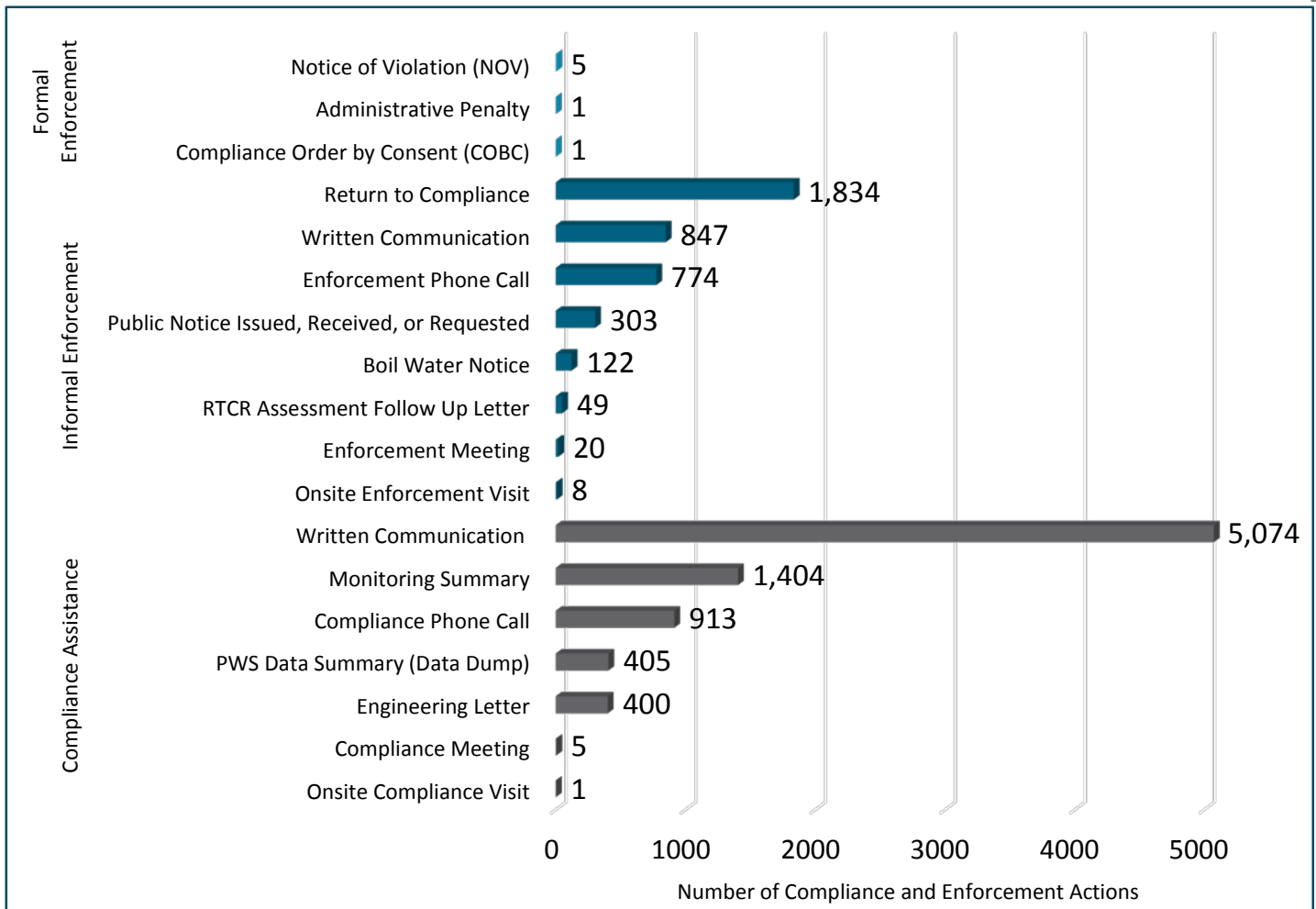
This continued proactive focus on technical and compliance assistance led to 8,202 total compliance assistance actions provided by DW Program staff to Alaska PWSs during CY 2016, which is an increase from last year's (CY 2015) total of 6,867 compliance assistance actions.

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 generate and document a record of the RTC action. In CY 2016, a total of 1,834 return to compliance actions were entered for 726 systems.

If a PWS has not returned to compliance in a timely manner, the DW Program uses a progressive enforcement response policy to achieve compliance, starting with a series of enforcement letters as the first steps towards more formal enforcement. During CY 2016, 3,957 informal enforcement actions were taken by the DW Program. If compliance is not achieved in a timely manner, 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 commonly 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 CY 2016, the DW Program took 7 formal enforcement actions against PWSs in the State of Alaska (see **Figure 9**, for a summary of compliance and enforcement actions taken in CY 2016).

Figure 9: Summary of Compliance and Enforcement Actions Taken by DW Program Staff in CY 2016



Drinking Water Program Additional Projects in 2016



Along with the routine duties outlined in this report, the DW Program worked on three additional projects, described below.

Revised Total Coliform Rule

The DW Program wrapped up the Revised Total Coliform Rule (RTCR) pre-implementation activities, such as staff training and finalizing the Seasonal Systems Startup Procedures and Level 1 and Level 2 Assessment forms, prior to the rule going into effect for PWSs on April 1, 2016. The RTCR added a requirement for a Seasonal Startup Procedure for seasonal water systems to be submitted prior to starting operations. Of the 242 seasonal water systems, 190, or 79%, submitted their Seasonal Startup Procedure form and total coliform sample on time. Another major component of the RTCR is the Level 1 and Level 2 Assessment, which can be triggered through total coliform and/or *E. coli* routine and repeat sampling results. In CY 2016, PWSs in Alaska triggered 51 Level 1 Assessments and 10 Level 2 Assessments.

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 Program continues to maintain a Geographic Information System (GIS) database of identified drinking water protection areas and provides this data as a web map. In CY 2016, two main web maps continued to be maintained, one for the public and one for internal use at the DEC. The internal web map includes data layers that are not currently available outside the DEC firewall. Over the last year, an internal policy change allows for the well and intake locations to be displayed in the public web map.

Efforts are continually being made to encourage municipal, borough, and state governments to use the web maps for various permitting activities that may impact drinking water sources. The link to the publicly available web maps is here: <http://dec.alaska.gov/das/gis/apps.htm>.

In CY 2016, the public web map displaying drinking water protection areas received approximately 6,257 viewer hits, with a running total of 31,634 viewer hits. The DEC web service for Drinking Water Protection Areas has seen a substantial increase in use. This increase is likely from other agencies including this service in their own specialized web map. For example, 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.

In CY 2016, the internal web map displaying drinking water protection areas (including well and intake locations) received approximately 1,381 viewer hits, with a running total of 10,908 viewer hits. However, users have the ability to make personal copies of this map to use with their own data layers, and those views are not counted here.



Groundwater Protection and Water Wells Stakeholder Workgroup

In CY 2016, the Drinking Water Protection group continued to hold regularly scheduled stakeholder workgroup meetings to address various issues and concerns related to water well construction and subsequent groundwater protection. The main goals of the workgroup are to establish construction practices for all water wells drilled in Alaska and to supplement the current regulatory requirements for the decommissioning of water wells. A total of five (5) meetings were held during CY 2016. Progress of the meetings can be followed on the DW Program Protection webpage, located at http://dec.alaska.gov/eh/dw/DWP/DWP_WaterWells_Mtnng.html.

Other Programs Related to Public Water Systems



The DW Program is not the only program within the DEC that works with PWSs; we have many partners who 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.

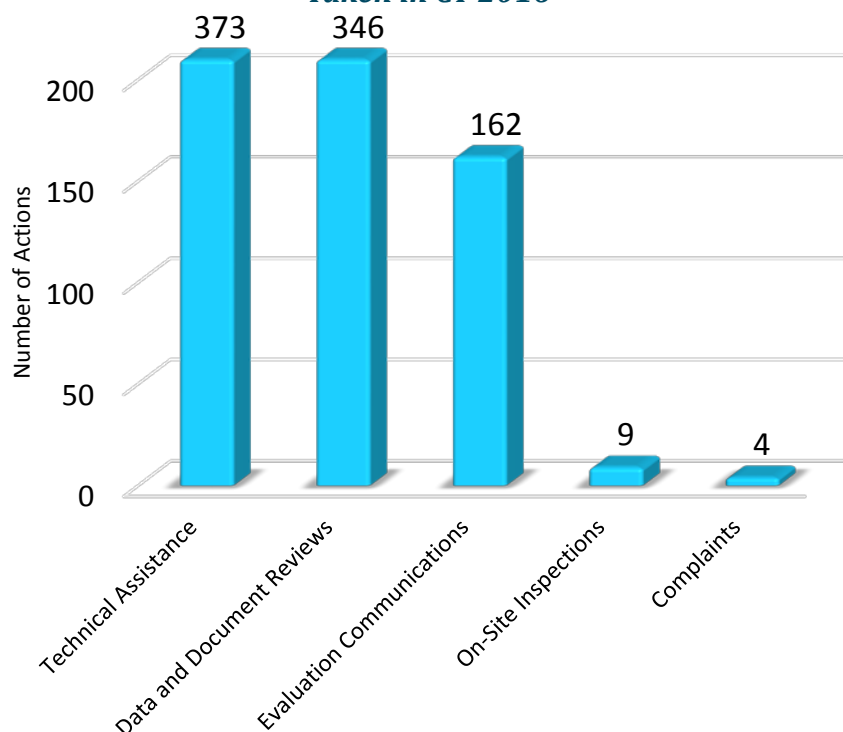
DEC Environmental Health Laboratory - Water Laboratory Certification Program

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 2016

During CY 2016, the EH Laboratory certified 34 laboratories for drinking water analysis (26 certifications for microbiological analysis and 16 certifications for chemical analysis) and performed a variety of analytical and technical assistance actions. These actions ranged from sending technical assistance emails to full reviews of a laboratory's Standard Operating Procedures and Quality Assurance Manuals (see **Figure 10**). For more information about the DEC EH Laboratory, please visit the webpage located at <http://dec.alaska.gov/eh/lab/index.htm>.

Figure 10: DW EH Laboratory Certification Actions Taken in CY 2016



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 he/she is 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 <http://www.dec.alaska.gov/water/opcert/index.htm>.

Operator Certification in 2016

In the State of Alaska, there are several different certification levels for operators (see **Figure 11** for a breakdown by certification level). In CY 2016, there were 2,033 active certifications held by 1,453 operators statewide. Many operators hold multiple levels of certification, with Level IV being the highest and requiring the most education and training.

PWSs also have corresponding classification levels determined by the complexity of the system components. **Figure 12** provides a breakdown of the number of water systems by Classification Level during CY 2016. A majority 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 a number of 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 CY 2016, 78 courses were approved by the Operator Certification Program, through which operators taking the courses may get 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 for the community.

Figure 11: Water Operator Certificates Active in CY 2016

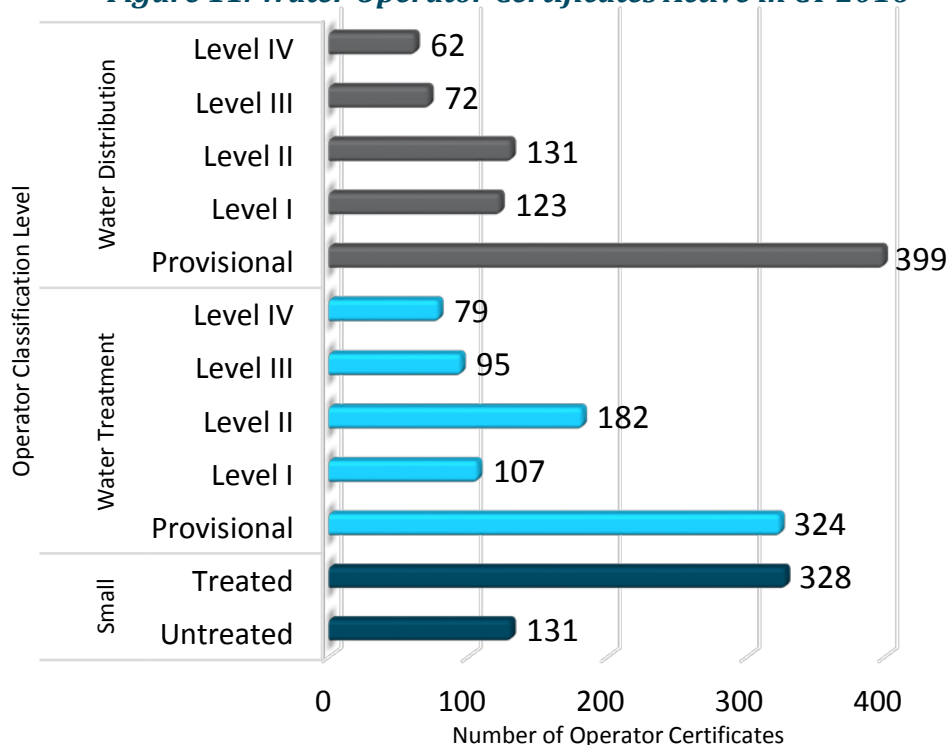
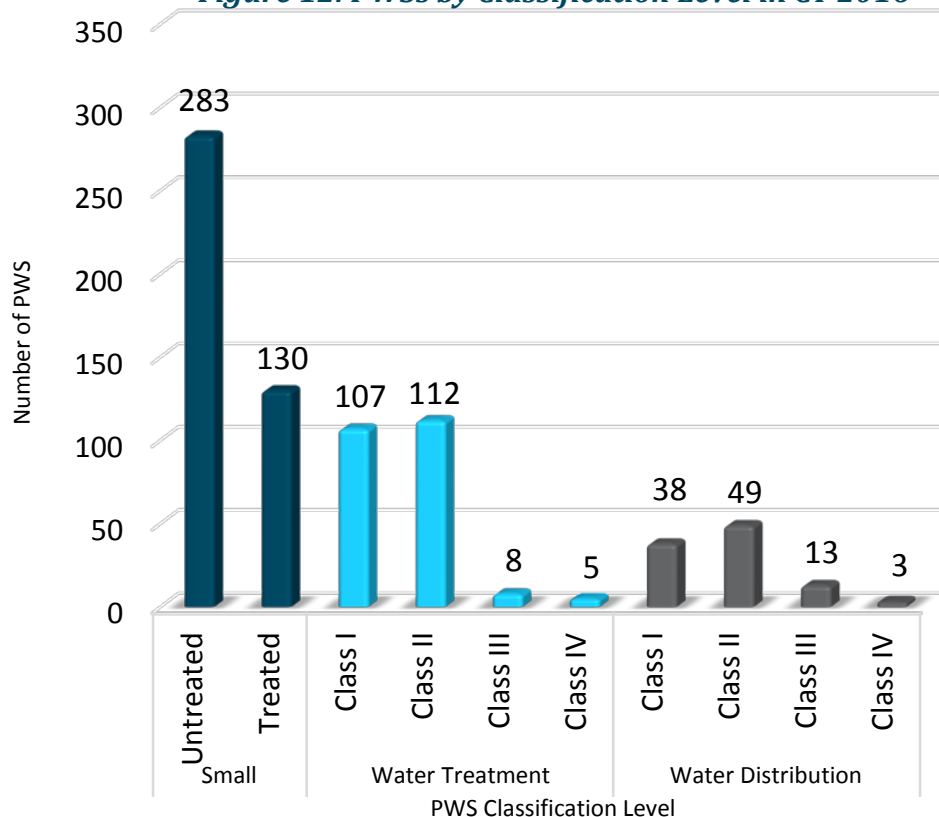


Figure 12: PWSs by Classification Level in CY 2016



Glossary of Terms

Annual Compliance Report (ACR)

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 it will 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.

Glossary of Terms

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

A Public Water System (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 highway rest stops or 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

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).

Obtaining a Copy of the 2016 Alaska Public Water System Compliance Report

As required by the Safe Drinking Water Act Amendments of 1996, the State of Alaska DW Program has made the Alaska PWS Annual Compliance Report for 2016 available to the public. Interested individuals can obtain a copy of the Alaska PWS Annual Compliance Report for 2016 by accessing the DW Program webpage or contacting Jeanine Vance or Rachel Westbrook.

- State webpage: <http://www.dec.state.ak.us/eh/dw/index.htm>
- Direct Link to Annual Compliance Report:
http://www.dec.state.ak.us/eh/dw/dwmain/ACR_vio.html
- Address of Responsible State Department: 555 Cordova Street, Anchorage, AK 99501
- Contact Names:
 - **Jeanine Vance**
Jeanine.vance@alaska.gov
Phone: 907-269-2007
Fax Number: 907-269-7655
 - **Rachel Westbrook**
Rachel.Westbrook@alaska.gov
Phone: 907-269-7630
Fax Number: 907-269-7655

Attachment #1
State of Alaska Public Water System Annual Compliance Report Violations for CY 2016

Rule Name	MCL		Treatment Technique		Monitoring		Other Violation	
	Violations	Systems in violation	Violations	Systems in violation	Violations	Systems in violation	Violations	Systems in violation
Total Coliform Rule (Violation Codes: MCL 21, 22; Monitoring 23, 25; Other 05, 28)	1	1			42	25	110	109
Revised Total Coliform Rule (Violation Codes: MCL 1A; Treatment Technique 2A, 2C, 2D; Monitoring 3A, 3B; Other 5A)	3	3	45	45	282	163	233	232
Surface Water Treatment Rules (Violation Codes: Treatment Technique 33, 37, 40, 41, 42, 43, 44, 45, 47; Monitoring 29, 31, 32, 36, 38)			93	31	406	84		
Ground Water Rule (Violation Codes: Treatment Technique 41, 42, 45, 48; Monitoring 19, 31, 34)			210	123	4	3		
Disinfection Byproducts Rules (Violation Codes: MCL 02, 11, 13; Treatment Technique 12, 46; Monitoring 27, 30, 35)	72	21	1	1	212	97		
Inorganic Contaminants (IOCs) (Violation Codes: MCL 01, 02; Monitoring 03, 04)	12	4			192	113		
Volatile Organic Contaminants (VOCs) (Violation Codes: MCL 01, 02; Monitoring 03, 04)	0	0			1,458	56		
Synthetic Organic Contaminants (SOCs) (Violation Codes: MCL 01, 02; Monitoring 03, 04)	0	0			1,740	32		
Radionuclides (Violation Codes: MCL 01, 02; Monitoring 03, 04)	0	0			101	37		
Lead and Copper Rule (Violation Codes: Treatment Technique 57, 58, 59, 63, 64, 65; Monitoring 51, 52, 56, 66)			4	4	116	69		
Consumer Confidence Report Rule (Violation Codes: Reporting 71)							82	66
Public Notification Rule (Violation Codes: Reporting 75)							28	18
Total Number of Federally Regulated PWSs in Alaska CY 2016:							1,447	
Total Number of PWSs with 1 or more Violations, 45% of PWSs (all rules, all violation types as noted above):							688	
Total Number of Violations in CY 2016:							5,447	

Alaska has one (1) Variance from EPA for TCR. This allows a coliform sample holding time extension from 30 to 48 hours under specific circumstances.

Date Notes:

*Systems that were inactivated in 2016 are not included in this chart.

*Violations that were returned to compliance in 2016 are not included in this chart.

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.

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

Attachment #2
**Public Water Systems with Maximum Contaminant Level (MCL) and/or Treatment
Technique (TT) Violations in CY 2016**

Bolded system names indicate multiple violations issued for rule during CY 2016

Chemical Rules Maximum Contaminant Level Exceedance Violation (Violation Code 01, 02)				
PWSID	Water System Name	System Type	Population Served	Contaminant
AK2243658	KB SUB. WATER SERVICE ASSOC.	CWS	170	Arsenic
AK2340141	LITTLE DIOMEDE WATER SUPPLY	CWS	184	Arsenic / Nitrate
AK2241012	RIVER TERRACE TC	CWS	337	Arsenic
AK2271211	TUNTUTULIAK WASHETERIA AND WATERING PT	CWS	350	Arsenic

Revised Total Coliform Rule Maximum Contaminant Level Exceedance Violation (Violation Code 1A)				
PWSID	Water System Name	System Type	Population Served	Contaminant
AK2291952	CHENEGA IRA VILLAGE	CWS	50	E.coli
AK2120224	HYDABURG	CWS	415	E.coli
AK2280040	SHAGELUK WATER SYSTEM	CWS	60	E.coli

Disinfection Byproducts Rule Maximum Contaminant Level Exceedance Violation (Violation Code 02, 11, 13)				
PWSID	Water System Name	System Type	Population Served	Contaminant
AK2130017	ANGOON PUBLIC WATER	CWS	450	TTHM & HAA5
AK2330135	BADAMI - SAVANT	NTNCWS	27	TTHM
AK2340248	BERING ST SD - TELLER SC/WASH	CWS	295	TTHM
AK2120193	CRAIG PUBLIC WORKS	CWS	1,475	TTHM & HAA5
AK2270299	EMMONAK WATER SYSTEM	CWS	820	TTHM
AK2360272	GALENA WATER SYSTEM WTP-1	CWS	670	TTHM
AK2120224	HYDABURG	CWS	415	TTHM & HAA5
AK2130083	KAKE MUNICIPAL WATER	CWS	415	HAA5
AK2120606	KASAAN	CWS	46	TTHM & HAA5
AK2120232	KETCHIKAN PUBLIC UTILITIES	CWS	8,980	HAA5
AK2120169	KLAWOOCK	CWS	904	HAA5
AK2272004	KOTLIK WATER SYSTEM	CWS	591	TTHM
AK2340060	KOTZEBUE MUN. WATER SYSTEM	CWS	3,290	HAA5
AK2320426	NSBU - POINT HOPE	CWS	881	TTHM & HAA5
AK2340442	SHAKTOOLIK WATER SYSTEM	CWS	240	TTHM
AK2340484	SHISHMAREF WATER SYSTEM	CWS	572	TTHM
AK2120216	THORNE BAY, CITY OF	CWS	775	TTHM & HAA5
AK2310683	UNIVERSITY OF ALASKA - FAIRBANKS	CWS	6,200	TTHM
AK2120012	VALLENAR VIEW MOBILE HOME PARK	CWS	225	TTHM & HAA5
AK2120143	WRANGELL	CWS	2,300	HAA5

Revised Total Coliform Rule Treatment Technique Violation (Violation Code 2A, 2C, 2D)				
PWSID	Water System Name	System Type	Population Served	Contaminant
AK2240862	ALASKAN ANGLER R V RESORT	TNCWS	60	RTCR
AK2249977	ALL SEASONS CAMPGROUND	TNCWS	142	RTCR
AK2111472	BEAR TRACK INN	TNCWS	46	RTCR
AK2243030	BING BROWNS RESORT	TNCWS	44	RTCR
AK2313827	BLUE LOON	TNCWS	108	RTCR
AK2261591	BRISTOL BAY BOROUGH DOCK	TNCWS	200	RTCR
AK2212500	CAMP CARLQUIST - CUBWORLD	TNCWS	209	RTCR
AK2241567	CAMP K ON KENAI LAKE CAMP FIRE ALASKA	TNCWS	120	RTCR
AK2111526	CHILKAT RIVER ADVENTURES	TNCWS	81	RTCR
AK2260202	CLARKS POINT WATER SYSTEM	CWS	128	RTCR
AK2121034	CLOVER BAY LODGE	TNCWS	40	RTCR
AK2249978	DECANTER INN HOTEL	TNCWS	31	RTCR
AK2243446	DIV PARKS CLAM GULCH #2	TNCWS	116	RTCR
AK2248454	DIV PARKS COOPER LANDING	TNCWS	27	RTCR
AK2248226	DIV PARKS MORGANS LANDING	TNCWS	50	RTCR
AK2242856	DIV PARKS NINILCHIK CMG	TNCWS	182	RTCR
AK2242864	DIV PARKS NINILCHIK VIEW	TNCWS	50	RTCR
AK2111513	DOC WARNERS FISH CAMP	TNCWS	90	RTCR
AK2110106	ECHO RANCH BIBLE CAMP	TNCWS	160	RTCR

Attachment #2

Public Water Systems with Maximum Contaminant Level (MCL) and/or Treatment Technique (TT) Violations in CY 2016

Revised Total Coliform Rule Treatment Technique Violation (Violation Code 2A, 2C, 2D)				
PWSID	Water System Name	System Type	Population Served	Contaminant
AK2121467	EL CAPITAN LODGE	TNCWS	38	RTCR
AK2130164	GLACIER BEAR LODGE	NTNCWS	101	RTCR
AK2111465	GOLD RUSH TRAIL CAMP	TNCWS	256	RTCR
AK2240854	GREAT ALASKA ADVENTURES	TNCWS	41	RTCR
AK2241444	INLET FISH PRODUCERS INC	TNCWS	100	RTCR
AK2249994	JERSEY SUBS KASILOF	TNCWS	100	RTCR
AK2223933	KINGS LAKE CAMP WELL #2	TNCWS	200	RTCR
AK2263070	LEADER CREEK BUNKHOUSE #1	TNCWS	220	RTCR
AK2249009	MOOSE RIVER RV PARK	TNCWS	100	RTCR
AK2242212	PACIFIC ALASKA SHELLFISH	TNCWS	34	RTCR
AK2241703	PACIFIC STAR SEAFOODS	TNCWS	152	RTCR
AK2242084	POACHERS COVE PLANNED UNIT DEVELOPMENT	TNCWS	400	RTCR
AK2216407	PORTAGE GLACIER CRUISES	TNCWS	400	RTCR
AK2249662	REAL ALASKAN CABINS & RV	TNCWS	86	RTCR
AK2244298	RIVER QUEST RV PARK	TNCWS	227	RTCR
AK2249256	RW BIG EDDY RESORT	TNCWS	70	RTCR
AK2121131	SALMON FALLS RESORT, LTD.	TNCWS	75	RTCR
AK2121093	SPORTSMANS COVE LODGE	TNCWS	55	RTCR
AK2249068	STILLPOINT LODGE	TNCWS	35	RTCR
AK2110110	TAKU GLACIER LODGE	TNCWS	110	RTCR
AK2263027	THE PIT	TNCWS	200	RTCR
AK2291431	TOLSONA WILDERNESS CAMPGROUND	TNCWS	60	RTCR
AK2249303	VOLCANO VIEW RV PARK	TNCWS	100	RTCR
AK2133333	WHALERS COVE LODGE	TNCWS	65	RTCR
AK2111555	WHITE PASS RV PARK	TNCWS	30	RTCR
AK2224955	WILLOW CREEK RESORT	TNCWS	74	RTCR

Disinfection Byproducts Rule Treatment Technique Violation (Violation Code 12, 46)				
PWSID	Water System Name	System Type	Population Served	Contaminant
AK2225773	NORTH FORK PROFESSIONAL BLDG	NTNCWS	108	DBP Stage 1

Surface Water Treatment Rules Treatment Technique Violation (Violation Code 33, 37, 40, 41, 42, 43, 44, 45, 47)				
PWSID	Water System Name	System Type	Population Served	Rule
AK2260595	ADAK UTILITIES	CWS	220	SWTRs
AK2130017	ANGOON PUBLIC WATER	CWS	450	SWTRs
AK2120135	BOYER TOWING	TNCWS	39	SWTRs
AK2260228	CHIGNIK BAY WATER SYSTEM	CWS	302	SWTRs
AK2121474	GEORGE INLET LODGE	TNCWS	49	SWTRs
AK2110855	HAINES FERRY TERMINAL	TNCWS	200	SWTRs
AK2120541	HOLLIS SCHOOL	NTNCWS	42	SWTRs
AK2120224	HYDABURG	CWS	415	SWTRs
AK2220692	ISLANDER BAR & RESTAURANT	TNCWS	68	SWTRs
AK2250087	KARLUK WATER SYSTEM	CWS	52	SWTRs
AK2120606	KASAAN	CWS	46	SWTRs
AK2340117	KIVALINA WATER SYSTEM	CWS	452	SWTRs
AK2120169	KLAWOCK	CWS	904	SWTRs
AK2263006	KOKHANOK WATER & WW SYSTEM	CWS	191	SWTRs
AK2271025	KONGIGANAK WATER SYSTEM	CWS	294	SWTRs
AK2271245	LKSD KONGIGANAK HS & ELEM	NTNCWS	143	SWTRs
AK2271874	NATIVE VILLAGE OF SLEETMUTE	CWS	82	SWTRs
AK2260804	NELSON LAGOON WATER SYSTEM	CWS	103	SWTRs
AK2271431	NEWTOK WATER SYSTEM	CWS	435	SWTRs
AK2260260	NONDALTON	CWS	205	SWTRs
AK2263060	NORTH PACIFIC SEAFOODS TOGIAC FISHERIES	TNCWS	100	SWTRs
AK2130122	PELICAN UTILITIES	CWS	230	SWTRs
AK2260359	PERRYVILLE WATER SYSTEM	CWS	120	SWTRs
AK2261216	PETER PAN SEAFOOD PORT MOLLER	TNCWS	140	SWTRs
AK2271059	PLATINUM CITY WATER SYSTEM	CWS	51	SWTRs
AK2261478	RED SALMON CANNERY	TNCWS	450	SWTRs
AK2243161	SALTRY	TNCWS	75	SWTRs

Attachment #2

Public Water Systems with Maximum Contaminant Level (MCL) and/or Treatment Technique (TT) Violations in CY 2016

Surface Water Treatment Rules Treatment Technique Violation (Violation Code 33, 37, 40, 41, 42, 43, 44, 45, 47)				
PWSID	Water System Name	System Type	Population Served	Rule
AK2340484	SHISHMAREF WATER SYSTEM	CWS	572	SWTRs
AK2261193	TRIDENT SEAFOODS CORP. AKUTAN	NTNCWS	1400	SWTRs
AK2262351	TRIDENT SEAFOODS INC. SAND PT	NTNCWS	400	SWTRs

Ground Water Rule Treatment Technique Violation (Violation Code 41, 42, 45, 48)				
PWSID	Water System Name	System Type	Population Served	Rule
AK2226043	AK OPERATING ENGINEERS EMPLOYER TRAINING	TNCWS	40	Ground Water Rule
AK2240862	ALASKAN ANGLER R V RESORT	TNCWS	60	Ground Water Rule
AK2242343	ALBATROSS (THE)	TNCWS	51	Ground Water Rule
AK2227701	AMERICAN LEGION POST 15	TNCWS	25	Ground Water Rule
AK2249069	AMORE MOCHA	TNCWS	50	Ground Water Rule
AK2241101	BAY VIEW TRAILER COURT	CWS	51	Ground Water Rule
AK2260464	BBBSD NAKNEK	NTNCWS	130	Ground Water Rule
AK2243137	BEACHSIDE TOWNHOUSE	CWS	60	Ground Water Rule
AK2240773	BEAR CREEK MOBILE HOME RV PARK	CWS	100	Ground Water Rule
AK2222084	BIG LAKE BAPTIST CHURCH	TNCWS	80	Ground Water Rule
AK2220150	BIG LAKE KINGDOM HALL	TNCWS	79	Ground Water Rule
AK2245587	BIRCH RIDGE GOLF COURSE, INC.	TNCWS	25	Ground Water Rule
AK2220248	BIRCHTREE CHARTER SCHOOL	NTNCWS	125	Ground Water Rule
AK2220310	BIRCHVIEW TOWNHOME CONDOS	CWS	25	Ground Water Rule
AK2212974	BIRCHWOOD SALOON	TNCWS	159	Ground Water Rule
AK2392033	BLM - BRUSHKANA RIVER CAMPGROUND	TNCWS	25	Ground Water Rule
AK2380670	BORDER CITY LODGE	TNCWS	41	Ground Water Rule
AK2291300	CARIBOU HOTEL & RESTAURANT	TNCWS	250	Ground Water Rule
AK2261096	CHIGNIK LAKE WATER SYSTEM	CWS	150	Ground Water Rule
AK2248381	CHURCH OF LDS SEWARD	TNCWS	60	Ground Water Rule
AK2260202	CLARKS POINT WATER SYSTEM	CWS	128	Ground Water Rule
AK2333314	COLDFOOT CAFE	TNCWS	115	Ground Water Rule
AK2243103	COLLEGE PARK HOME OWNERS ASSOC	CWS	85	Ground Water Rule
AK2224329	CRIMSON VIEW S/D WATER ASSN.	CWS	120	Ground Water Rule
AK2244256	CROOKED CREEK RV PARK	TNCWS	125	Ground Water Rule
AK2299032	CV GROCERS INC	TNCWS	222	Ground Water Rule
AK2390285	DENALI BOROUGH SD - TRI-VALLEY	NTNCWS	277	Ground Water Rule
AK2390358	DENALI CABINS, SO./MILE 229	TNCWS	96	Ground Water Rule
AK2243446	DIV PARKS CLAM GULCH #2	TNCWS	116	Ground Water Rule
AK2248454	DIV PARKS COOPER LANDING	TNCWS	27	Ground Water Rule
AK2248226	DIV PARKS MORGANS LANDING	TNCWS	50	Ground Water Rule
AK2242856	DIV PARKS NINILCHIK CMG	TNCWS	182	Ground Water Rule
AK2242864	DIV PARKS NINILCHIK VIEW	TNCWS	50	Ground Water Rule
AK2249882	DIV PARKS SLIDEHOLE	TNCWS	25	Ground Water Rule
AK2244002	DUCK INN	TNCWS	200	Ground Water Rule
AK2227199	EQUESTRIAN ACRES	CWS	950	Ground Water Rule
AK2249975	EXIT GLACIER CABINS & SALMON BAKE	TNCWS	124	Ground Water Rule
AK2226533	FARM LOOP CHRISTIAN CENTER	TNCWS	87	Ground Water Rule
AK2241313	FOUR ROYLE PARKERS BAR & REST.	TNCWS	31	Ground Water Rule
AK2370219	GAKONA JUNCTION VILLAGE	TNCWS	49	Ground Water Rule
AK2380418	GAKONA LODGE AND TRADING POST	TNCWS	33	Ground Water Rule
AK2291504	GLENNALLEN HEIGHTS GHWSA	CWS	32	Ground Water Rule
AK2291499	GLENNALLEN WATER WORKS	CWS	360	Ground Water Rule
AK2210338	GREEN ACRES TC	CWS	96	Ground Water Rule
AK2220464	H & H LAKEVIEW LODGE	TNCWS	300	Ground Water Rule
AK2300191	HUSLIA PUBLIC WATER SYSTEM	CWS	300	Ground Water Rule
AK2225794	IDITACUP ESPRESSO	TNCWS	40	Ground Water Rule
AK2242783	IMMANUEL BAPTIST CHURCH	TNCWS	147	Ground Water Rule
AK2249816	INLET VIEW RESTAURANT & BAR	TNCWS	51	Ground Water Rule
AK2310374	IVORY JACKS	TNCWS	88	Ground Water Rule
AK2292330	KENNY LAKE FIRE HALL	CWS	200	Ground Water Rule
AK2340230	KIANA WATER SYSTEM	CWS	455	Ground Water Rule
AK2225008	KING POINT LODGE	TNCWS	29	Ground Water Rule
AK2243967	KINGFISHER ROADHOUSE	TNCWS	25	Ground Water Rule
AK2340565	KOBUK WATER SYSTEM	CWS	93	Ground Water Rule

Attachment #2
Public Water Systems with Maximum Contaminant Level (MCL) and/or Treatment
Technique (TT) Violations in CY 2016

Ground Water Rule Treatment Technique Violation (Violation Code 41, 42, 45, 48)				
PWSID	Water System Name	System Type	Population Served	Rule
AK2260040	KOLIGANEK WATER SYSTEM	CWS	167	Ground Water Rule
AK2360214	KOYUKUK SAFEWATER FACILITY	CWS	97	Ground Water Rule
AK2260634	L&PSD NEWHALEN SCHOOL	NTNCWS	73	Ground Water Rule
AK2248080	L.J. HOLDINGS, LLC.	TNCWS	100	Ground Water Rule
AK2240529	LAMPLIGHT BAR & LIQUOR STORE	TNCWS	50	Ground Water Rule
AK2370879	LARRYS APARTMENTS	CWS	30	Ground Water Rule
AK2391736	LDS / DENALI CHAPEL	TNCWS	52	Ground Water Rule
AK2271017	LKSD TUNTUTULIAK ANGAPAK SC	NTNCWS	101	Ground Water Rule
AK2226021	MAJESTIC HILLS SUBDIVISION	CWS	168	Ground Water Rule
AK2260090	MANOKOTAK WATER SYSTEM	CWS	370	Ground Water Rule
AK2242490	MARIAS MEXICAN FOOD	TNCWS	50	Ground Water Rule
AK2300159	MINTO COMMUNITY WATER SYSTEM	CWS	205	Ground Water Rule
AK2226460	MSBSD BUTTE ELEMENTARY	NTNCWS	499	Ground Water Rule
AK2227474	MSBSD COLONY SCHOOLS	NTNCWS	1961	Ground Water Rule
AK2224604	MSBSD HOUSTON MIDDLE SCHOOL	NTNCWS	381	Ground Water Rule
AK2225165	MSBSD KNIK-GOOSE BAY ELEM.	NTNCWS	897	Ground Water Rule
AK2225968	MSBSD RON LARSON SCHOOL	NTNCWS	505	Ground Water Rule
AK2224272	MSBSD TANAINA ELEMENTARY	NTNCWS	439	Ground Water Rule
AK2220085	MSBSD TWINDLEY BRIDGES CHARTER SCHOOL	NTNCWS	55	Ground Water Rule
AK2260367	NEW STUYAHOK WATER SYSTEM	CWS	510	Ground Water Rule
AK2241020	NIKISHKA BAY	CWS	470	Ground Water Rule
AK2243991	NIKISKI CHURCH OF THE NAZARENE	TNCWS	100	Ground Water Rule
AK2249101	NIKISKI NEW HOPE CHRISTIAN FELLOWSHIP	TNCWS	50	Ground Water Rule
AK2243705	NIKKO GARDEN	TNCWS	100	Ground Water Rule
AK2225773	NORTH FORK PROFESSIONAL BLDGS	NTNCWS	200	Ground Water Rule
AK2227555	PALMER KINGDOM HALL	TNCWS	200	Ground Water Rule
AK2224476	QUIET CIRCLE APARTMENTS	CWS	90	Ground Water Rule
AK2310879	RAINBOW VALLEY MHP	CWS	105	Ground Water Rule
AK2220100	REAL LIFE CHURCH	TNCWS	70	Ground Water Rule
AK2249874	RED DIAMOND BLD B	TNCWS	70	Ground Water Rule
AK2243006	RED DIAMOND CENTER	NTNCWS	175	Ground Water Rule
AK2247474	RESURRECTION BAY CONDOS	TNCWS	58	Ground Water Rule
AK2226035	RIVER BEND SUBDIVISION	CWS	320	Ground Water Rule
AK2210451	RIVIERA TERRACE TC	CWS	435	Ground Water Rule
AK2360866	RUBY WATER SYSTEM	CWS	215	Ground Water Rule
AK2249067	SACKETTS GRILL	TNCWS	50	Ground Water Rule
AK2222806	SACRED HEART PARISH	NTNCWS	210	Ground Water Rule
AK2226027	SANDERSON BUILDING	TNCWS	116	Ground Water Rule
AK2225697	SCHWABENHOF RESTAURANT	TNCWS	31	Ground Water Rule
AK2120761	SEALASKA INN	TNCWS	72	Ground Water Rule
AK2225313	SEARS HOLDING COMPANY WASILLA	NTNCWS	150	Ground Water Rule
AK2221834	SETTLERS BAY VILLAGE	CWS	2733	Ground Water Rule
AK2224078	SHERWOOD ESTATES #2	CWS	147	Ground Water Rule
AK2370049	SNOWED INN RV & TRAILER CT.	TNCWS	51	Ground Water Rule
AK2245105	SOLDOTNA CHURCH OF CHRIST	TNCWS	100	Ground Water Rule
AK2222343	SPENARD BUILDERS' SUPPLY BIG LAKE	NTNCWS	330	Ground Water Rule
AK2245163	STERLING LUTHERAN CHURCH	TNCWS	25	Ground Water Rule
AK2249049	STONE CREEK RV PARK	TNCWS	202	Ground Water Rule
AK2223593	SUMMIT WORSHIP CENTER	TNCWS	204	Ground Water Rule
AK2226525	SUTTON GENERAL STORE	TNCWS	28	Ground Water Rule
AK2380638	TETLIN UTILITY SYSTEM	CWS	150	Ground Water Rule
AK2248056	THE FARM B&B	TNCWS	47	Ground Water Rule
AK2248315	THE HUTCH BED AND BREAKFAST	TNCWS	27	Ground Water Rule
AK2292291	TONSINA LODGE COMPLEX	TNCWS	38	Ground Water Rule
AK2225585	TOP DOG DRIVE IN	TNCWS	106	Ground Water Rule
AK2223721	TUG BAR & LIQUOR STORE	TNCWS	40	Ground Water Rule
AK2380997	TUNDRA LODGE RV CAMPGROUND	TNCWS	52	Ground Water Rule
AK2260032	TWIN HILLS WATER SYSTEM	CWS	78	Ground Water Rule
AK2227539	TWIN PEAKS	CWS	37	Ground Water Rule
AK2249966	USFS KENAI LAKE WORK CENTER	NTNCWS	93	Ground Water Rule
AK2240985	VAGABOND INN	TNCWS	50	Ground Water Rule
AK2249303	VOLCANO VIEW RV PARK	TNCWS	100	Ground Water Rule
AK2340507	WHITE MOUNTAIN WATER SYSTEM	CWS	210	Ground Water Rule

Attachment #2

Public Water Systems with Maximum Contaminant Level (MCL) and/or Treatment Technique (TT) Violations in CY 2016

Ground Water Rule Treatment Technique Violation (Violation Code 41, 42, 45, 48)				
PWSID	Water System Name	System Type	Population Served	Rule
AK2310853	WILDWOOD MOBILE HOME PARK	CWS	114	Ground Water Rule
AK2224183	WILLOW COMMUNITY CENTER	TNCWS	28	Ground Water Rule
AK2225653	WILLOW UNITED METHODIST CHURCH	TNCWS	46	Ground Water Rule
AK2220096	WORD OF FAITH ASSEMBLY	TNCWS	26	Ground Water Rule
AK2130172	YAKUTAT PWS	CWS	740	Ground Water Rule

Lead and Copper Rule Treatment Technique Violation (Violation Code 57, 58, 59, 63, 64, 65)				
PWSID	Water System Name	System Type	Population Served	Rule
AK2340222	DEERING UTILITY SYSTEM	CWS	150	Lead & Copper Rule
AK2272016	NEW KASIGLUK WATER SYSTEM	CWS	276	Lead & Copper Rule
AK2225995	OMEGA BUILDING	NTNCWS	160	Lead & Copper Rule
AK2310926	VALLEY WATER COMPANY	CWS	1575	Lead & Copper Rule