

Key Performance Indicators

Department of Environmental Conservation

- [Return to Departments](#)
- [Department of Environmental Conservation website](#)

Mission

Protect human health and the environment. AS 46.03.010, AS 44.46.020

Key Performance Indicators

FY19 Authorized as of 10/2/2018 (In thousands)

Department of Environmental Conservation Totals	Funding					Positions		
	UGF Funds	DGF Funds	Other Funds	Federal Funds	Total Funds	Full Time	Part Time	Non Perm
	\$15,391.8	\$24,919.9	\$17,583.9	\$23,356.3	\$81,251.9	485	0	1

1. Protecting Human Health <i>Programs include: Food Safety and Sanitation, Laboratory Services, Drinking Water, Solid Waste and Pesticide Management, Air Quality and Facility Construction. Contributions are also made by Administrative Services.</i>	Funding					Positions		
	UGF Funds	DGF Funds	Other Funds	Federal Funds	Total Funds	Full Time	Part Time	Non Perm
	\$10,953.4	\$7,538.9	\$8,966.9	\$12,391.3	\$39,850.5	236	0	1

- **Target: 85% of regulated systems comply with drinking water supply system operator certification requirements.**
- **Target: No days when air is unhealthy for sensitive groups.**
- **Target: Environmental Health Lab completes sample requests on-time based on project parameters.**
- **Target: All serviceable rural Alaska homes are served by safe and sustainable sanitation facilities.**

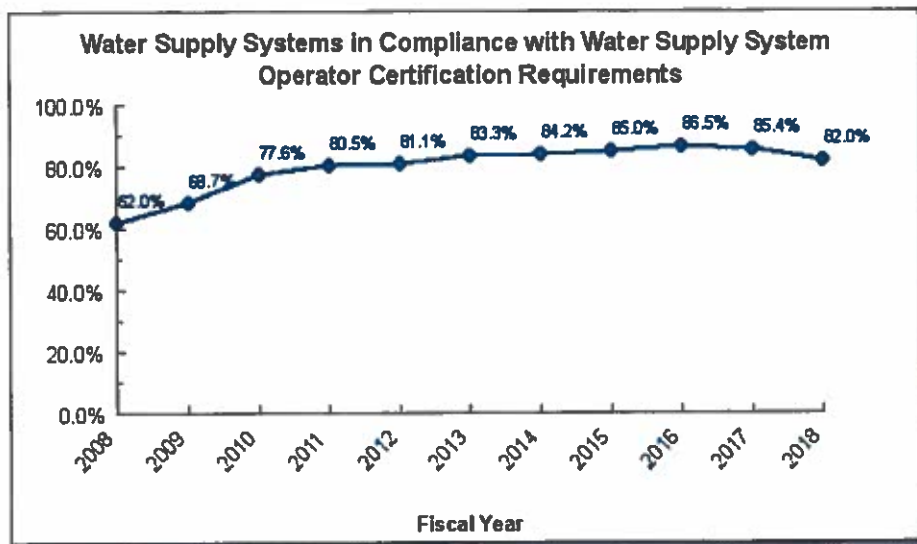
2. Protecting the Environment <i>Programs include: Contaminated Sites, Industry Preparedness and Pipeline Operations, Prevention and Emergency Response, Response Fund Administration, Air Quality, and Water Quality. Contributions are also made by Administrative Services.</i>	Funding					Positions		
	UGF Funds	DGF Funds	Other Funds	Federal Funds	Total Funds	Full Time	Part Time	Non Perm
	\$4,438.4	\$17,381.0	\$8,617.0	\$10,965.0	\$41,401.4	249	0	0

- **Target: All water facility, wastewater discharge, and air quality permit-holders are current and in compliance with permit requirements.**
- **Target: 100% of high risk and 20% of non-high risk contingency plan holders are inspected or evaluated for oil discharge prevention annually.**

Performance Detail

1: Protecting Human Health

Target #1: 85% of regulated systems comply with drinking water supply system operator certification requirements.



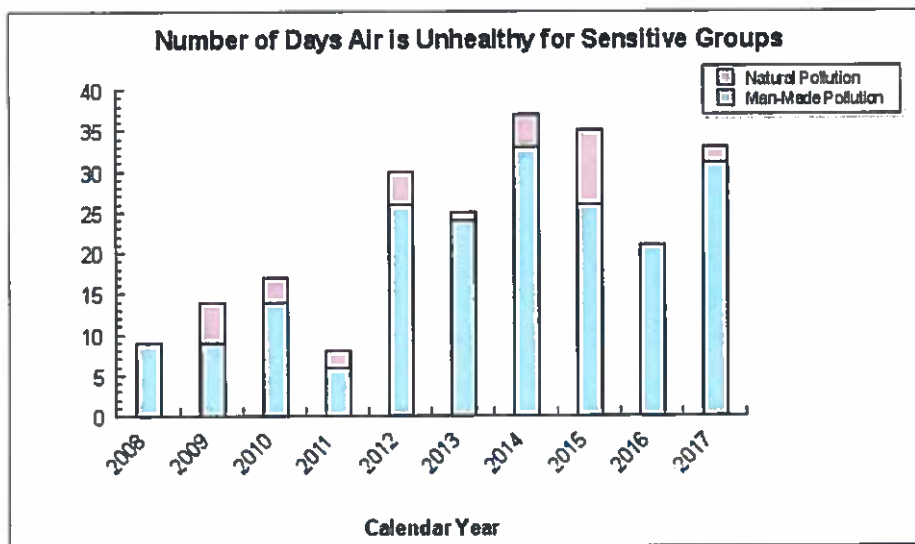
Methodology: The number of water supply systems that employ an operator certified at the correct level is divided by the total number of water supply systems that are subject to this requirement.

Analysis of results and challenges: Certification validates that Water System Operators have the qualifications necessary to safeguard public health. The State's Operator Certification program classifies water systems based on the size and complexity of a system, and determines whether operators have experience and knowledge commensurate with the system's classification. The Operator Certification program offers training and administers examinations to assist operators with achieving certification.

Although the Operator Certification program oversees certification in water treatment, water distribution, wastewater treatment, and wastewater collection, this measure is limited to drinking water supply system certification as public health is most closely related to drinking water safety. This measure also excludes systems with less than 25 users or systems where users obtain water on a house by house basis (private wells or rain catchments), since those systems are not subject to Operator Certification requirements.

The Operator Certification program places an emphasis on notifying systems of certification requirements, increasing the availability of exams for operators, and promoting operator training opportunities. Through these efforts, the percentage of systems employing properly certified operators has remained greater than 80% for the past eight years. Several factors affect compliance rates, including frequent turnover of system operators, rising travel costs which inhibit operator travel to certification training, and increasing complexity of systems which drives up the certification requirements. Recognizing that full compliance is unlikely given these challenges, the program has adopted 85% compliance as the target to achieve and maintain. In FY2018, the program fell slightly short of this target. In addition to current efforts, the program is moving forward with initiatives that will improve outreach to systems and increase technical assistance opportunities for operators. As these new initiatives are developed and implemented, the program anticipates a further increase in the number of systems with properly certified operators.

Target #2: No days when air is unhealthy for sensitive groups.



Methodology: Data is calculated using sampling information from samplers in the Municipality of Anchorage, City and Borough of Juneau, the Fairbanks North Star Borough, and the Matanuska-Susitna Valley.

Analysis of results and challenges: Data for calendar year 2018 will be available in the early months of 2019.

The Department of Environmental Conservation has been collecting ambient air data in most populated communities around the state for over 25 years. Air monitoring ensures compliance with the National Ambient Air Quality Standards designed to protect public health. The EPA sets health-based standards for particulate matter and gaseous pollutants. In the state, the primary pollutants of concern are particulate matter and carbon monoxide (CO). Violations of the standards occur when the concentration of air pollution particulates rise above the defined limit as a result of natural events and/or emissions from man-made sources. Natural sources of fine particulate matter (PM_{2.5}) pollution include smoke from wild fires, while coarse particulate matter (PM₁₀) pollution includes ash from volcanic eruption or windblown dust from gravel bars. Man-made PM_{2.5} pollution is often the byproduct of combustion processes, including home heating emissions such as from wood stoves, and diesel and gas vehicle emissions. Man-made PM₁₀ pollution in Alaska is frequently produced by road dust from gravel roads and road sanding materials.

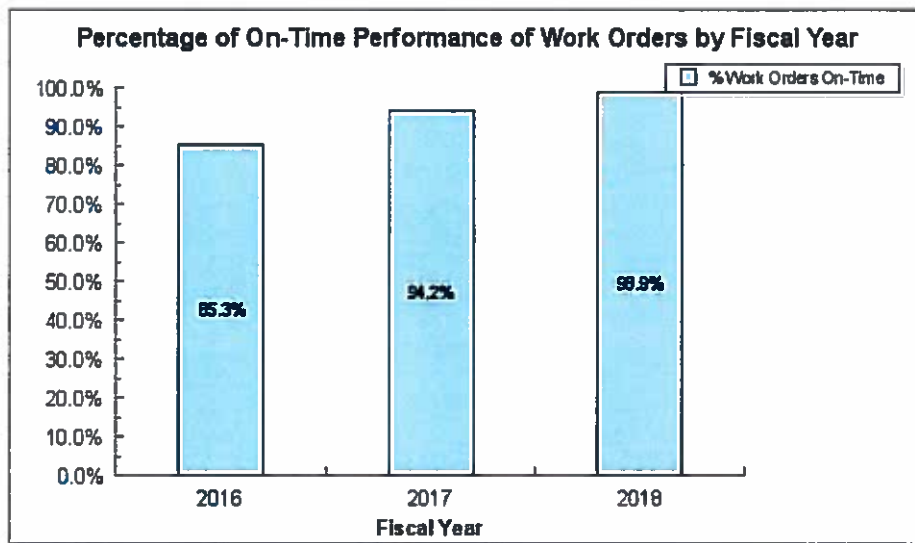
The chart above shows the number of days the air quality was deemed unhealthy for sensitive groups, including children, the elderly, and people with lung or heart diseases. The increased numbers in 2012 and beyond is due to the installation of the North Pole monitoring site. In 2017, all but two exceedances were man-made. The two naturally caused exceedances were due to a high wind event in the Mat-Su Valley and to interior Alaska wildfire smoke (FNSB). 27 of the 33 events were recorded in the Fairbanks North Star Borough, five exceedances were recorded at the Butte in the Matanuska-Susitna Valley and one exceedance was recorded in Anchorage. Since 2000, no violations of the CO standards have been recorded.

The State is currently working with the Fairbanks North Star and the Matanuska Susitna Boroughs to evaluate the extent of the pollution problem and to tailor control strategies aimed at eliminating the fine-particulate problem. More information about DEC's air monitoring projects throughout the state can be found at <http://www.dec.state.ak.us/air/am/index.htm>.

Related links:

- <http://www.dec.state.ak.us/air/am/index.htm>

Target #3: Environmental Health Lab completes sample requests on-time based on project parameters.



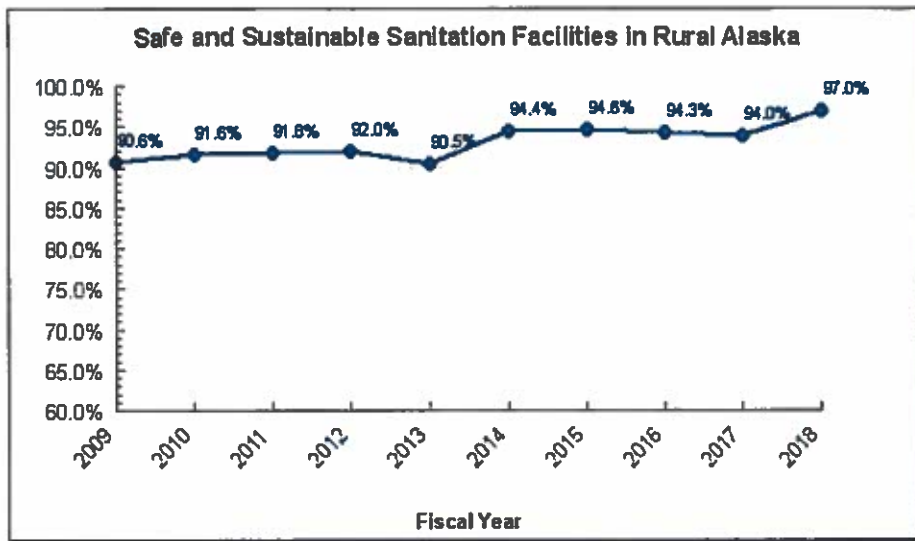
Methodology: All tests performed by the lab are logged and tracked from sample receipt through final testing and reporting.

Analysis of results and challenges: The Environmental Health Laboratory (EHL) utilizes a Laboratory Information Management System (LIMS) to more efficiently further the Department's mission by providing laboratory testing services, analysis, and technical information for assessment of risks to public health, welfare, and the environment.

All sample submissions to the EHL are entered into the LIMS, labeled with unique identification numbers, and distributed to staff for processing and analysis. Submission turnaround time (TAT) varies based on customer need, project parameters, and workload balancing. The on-time completion of work orders represents the timeliness of final result delivery. This data is depicted above for preceding fiscal years.

The marked increase in on-time delivery spanning FY2016 to FY2018 is the result of two factors. First, the number of processes in-house has decreased, improving the EHL ability to complete sampling requests. Target #1 (All requested tests for chemical and biological animal diseases and environmental toxins are completed) reflects positive momentum, showing more of the work submitted each year is completed with less carry forward. Secondly, the Department identified an information technology learning curve relating to accurately capturing performance data. When the LIMS was implemented in FY2012, TAT work order processing data was used for trending, however, accuracy of the data fell out of focus due to operational demands. In anticipation of LIMS data availability for future budget years the EHL instituted process controls ensuring the accuracy of data for targeted RDU performance metrics. Implementation of this performance measure in FY2020 reflects the department's ability to better identify, target, and track EHL throughput annually.

Target #4: All serviceable rural Alaska homes are served by safe and sustainable sanitation facilities.



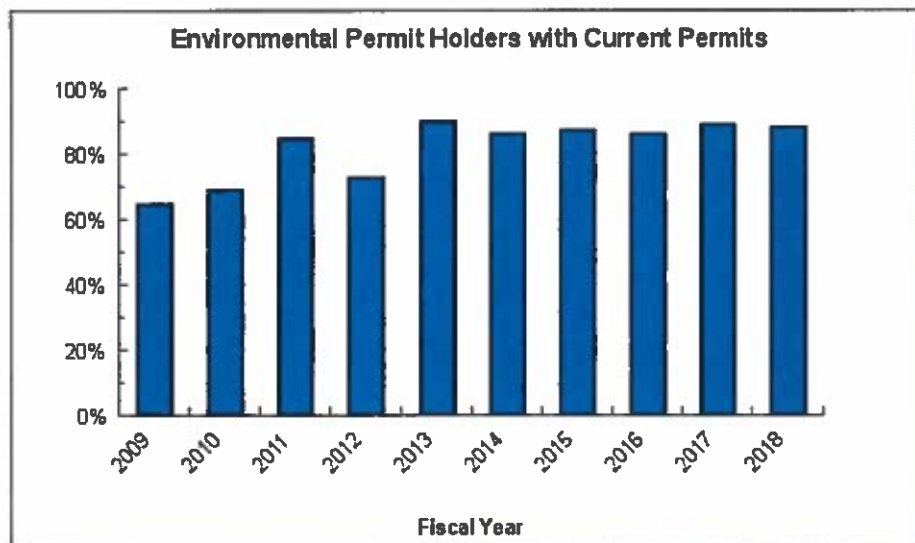
Methodology: Total number of serviceable housing units divided by total number of homes connected for service.

Analysis of results and challenges: The Village Safe Water (VSW) program continues its work to achieve the goal that 100% of year-round occupied homes have access to in-home running water and sewer. This service has historically been provided by centralized piped, closed haul systems, or individual septic tanks/wells. This goal is limited to rural households in communities that have the financial, managerial, and technical capacity to properly operate a facility once it is built and where these types of systems are physically feasible.

The baseline year for this measure is FY2000 when 69% of rural homes were served by adequate sanitation systems. Compared to the 94% of households served in FY2017, this equates to a total increase of 25% over 17 years, or an annual average increase of 1.5%, which is lower than the program's target of 2.5% per year. The pace of progress has slowed in recent years as federal and State funding for rural Alaska water and sewer projects has sharply declined, and the cost of constructing centralized systems in unserved communities has escalated. Additionally, an increasing share of total available funding has been needed in recent years to pay for needed upgrades to existing water and sewer systems, making less funds available for constructing systems that will provide first-time service to homes. There was a one percent decrease in the number of homes reported as served between FY2012 and FY2013, and again between FY2015 and FY2016. These changes were not due to homes losing service but rather changes in the methodology for collecting housing data. VSW and partner organizations are transitioning to a map-based housing inventory tracking system, which provides more accurate housing data. It should be noted that this estimate excludes homes and communities currently deemed as "unserved" by federal funding agencies and includes homes in larger communities that are eligible for federal funding but ineligible for VSW funding.

2: Protecting the Environment

Target #1: All water facility, wastewater discharge, and air quality permit-holders are current and in compliance with permit requirements.



Methodology: Data includes operator certifications, water discharge permits, and air quality permits.

Analysis of results and challenges: The Department issues a variety of permits to help ensure operators are doing their part to help protect the environment and citizens from pollution. Each program monitors to ensure permit-holders are current and in compliance with

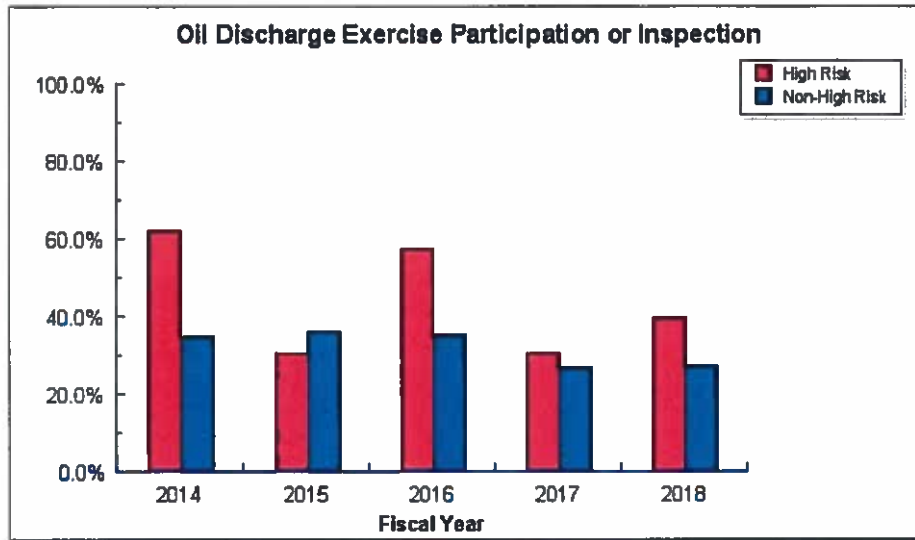
the requirements of those permits through monitoring, inspections, and reviews of permit renewal applications.

For the water supply system operator certification program, which ensures operators have the qualifications necessary to meet the responsibility of safeguarding public health, a compliance rate of 88% was achieved in FY2018.

The water discharge program issues permits for domestic wastewater, seafood processing, fish hatcheries, mines, oil and gas facilities, and log-transfer facilities. The Department is in the process of taking over responsibility for these permits from the Environmental Protection Agency (EPA), and while compliance is currently 88%, that rate is expected to fluctuate.

The air quality permit program requires major and some minor stationary sources' compliance be tracked. Under federal compliance reporting, status reverts to "unknown" if compliance is not evaluated in the past two years for major sources or five years for minor sources. These sources are assumed to be in compliance for the purposes of this measure as the majority of the sources are minor sources. In FY2018, 97% were compliant.

Target #2: 100% of high risk and 20% of non-high risk contingency plan holders are inspected or evaluated for oil discharge prevention annually.



Methodology: The percentage of oil discharge exercise participation or inspections is calculated by dividing the number of high risk contingency plan holders that were inspected or participated in the exercise by the number of contingency plan holders considered high risk. The percentage of oil discharge exercise participation or inspections is calculated by dividing the number of non-high risk contingency plan holders that were inspected or participated in the exercise by the by the number of contingency plan holders considered non-high risk.

Analysis of results and challenges: Regulated facilities and vessel operators in Alaska are required to have an approved oil discharge prevention and contingency plan in place before they are allowed to operate. These contingency plans outline the various steps and procedures in place to prevent oil discharges and the actions that would be taken in the event of a discharge to implement prompt and effective containment and cleanup of the area. The Division regularly inspects these plan holders to ensure the procedures in place are sufficient to prevent or respond to an emergency situation. Preventing oil spills is the best means of protecting the environment and public health. In the event of a discharge, a prompt and effective detection and response significantly reduces the adverse impacts on the environment and public health.

Facilities and vessels designated as High Risk in the state include: those with new contingency plans; exploration, production, and refinery facilities; those with spills over 50 gallons; those with formal enforcement actions based on operations violations; and those that would have significant impacts to human health or the environment if there were a failure.

The Department acknowledges all facilities or vessels required to have a contingency plan represent some level of inherent risk to the state of Alaska, even if not identified as high risk. Auditing, inspecting, or testing of these perceived low-risk facilities and their contingency plans is important to verify ongoing prevention and response readiness.

In FY2018, there were a total of 138 regulated plan-holders, representing a net decrease of ten plan-holders from the prior fiscal year. 57 plan-holders were identified as high-risk, 9 fewer than the previous year. An additional 9 of those plan-holders, while classified as High Risk and with an approved oil discharge prevention and contingency plan from the Department, were not operating during FY2017 and therefore could not be inspected or drilled. 81 plan-holders were identified as non-high risk, a decrease of one plan-holder from the previous year. The percent of inspections or response exercises conducted on High Risk plan holders increased from 30% in FY2017 to 40% in FY2018. Oversight of non-high risk facilities exceeded the 20% benchmark for the sixth year in a row.

The oil discharge prevention and contingency plan 5-year renewals come in cycles, with more renewals in some years than others. FY2018 represents a heavy year; 43 new plans, plan renewals, or major plan amendments were approved in FY2018, compared to 47 in FY2017 and 36 approvals issued in FY2016. The increased workload associated with plan review during FY2018 limited program staff's ability to conduct field inspections. During FY2018 the Program also saw a substantial change in program staff with 13 employees leaving the Program compared to 8 in FY2017. With such significant turnover, staff were focused primarily on completion of plan reviews and emergency spill response.

We continue to hold training in plan review, inspections, conducting response exercises, and response actions; the Division anticipates continued improvement towards meeting this target with stable staffing.

Current as of November 16, 2018

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