Monitoring Summary for KARLUK WATER SYSTEM

Public water system ID#AK2250087 **Population: 60** **June 24, 2024**

Community Water System, Surface water

	Requirement	Sample Point ID	Required Sampling Frequency	Last Sample	Next Sample
	Sanitary Survey		Every 3 years	08/23/2022	2025
DS KARLUK WATER SYSTEM (Facility ID:DS001)					
	COLIFORM (TCR)	SPDS001TCR	1 sample(s) monthly	06/05/2024	Monthly, according to Sample Siting Plan
	LEAD AND COPPER	SPDS001PC	5 sample(s) every 3 years	12/22/2021	2024
	HAA5 (HALOACETIC)	-See below-	1 sample(s) annually	07/25/2023	See stage 2 sampling detail information below
	TOTAL TRIHALOMETHANE	-See below-	1 sample(s) annually	09/25/2023	See stage 2 sampling detail information below
TP FOR KARLUK WATER SYSTEM (Facility ID:TP001)					
	SOC	SPTP001	1 sample(s) quarterly	07/13/2006	Submit SOC waiver renewal application by Sept 30, 2024
	VOC	SPTP001	1 sample(s) annually	07/25/2023	2024
	NITRATE	SPTP001	1 sample(s) annually	09/25/2023	2024
	ARSENIC - SINGLE	SPTP001	1 sample(s) per 9 year cycle	07/11/2018	Between 2020 and 2028
	RADIUM 226 AND 228	SPTP001	1 sample(s) per 9 year cycle	09/11/2019	Between 2026 and 2034
	TOTAL GROSS ALPHA	SPTP001	1 sample(s) per 9 year cycle	09/11/2019	Between 2026 and 2034
	INORGANICS	SPTP001	1 sample(s) per 9 year cycle	07/07/2021	Between 2029 and 2037

Stage 2 Sampling Detail Information - Sample frequency listed in requirements above

Contaminant	Sample Pt. ID	Location	Sample Count	Sample Dates
TTHM	SPDS1DBP2-T	HEALTH CLINIC	1	September 2024
HAA5	SPDS1DBP2-H2	KATHERINE'S HOUSE	1	July 2024

Operator Report

Requirement	Location	Sampling Frequency	Last Report	
TURBIDITY	After Filters	1 samples 20 days per month	03/01/2024	Test and record daily. Send reports to ADEC on the last day of the month (before the 10th day of the following month).
CHLORINE	Distribution System	Same time/place as routine TCR sample	06/05/2024	
CHLORINE	Entry Point	1 samples 20 days per month	03/01/2024	
CHLORINE	Entry Point	1 samples 20 days per month	03/01/2024	

Compliance Schedules

Schedule/Action	Due	Comments
Boil Water Notice		
BWN-CLOSED BWN		

Construction Approval Schedule		
CORRECTIVE ACTION	07/01/2024	Water pressure in the distribution system is lost during filter backwash. The system is required to maintain pressure above 20 psi in the distribution system.
CORRECTIVE ACTION	07/01/2024	The line used to fill the chlorine mixing vat is connected to a hose bib without backflow prevention. This represents a potential cross connection. The system is required to install a backflow prevention device on the hose bib.
CORRECTIVE ACTION	07/01/2024	The storage tank overflow line is unscreened and terminates at grade. The line is required to be screened and to terminate at least two times its diameter above ground surface.
CORRECTIVE ACTION	07/01/2024	The raw water storage tank is rusting internally. In 2007, after cleaning and inspecting the tank, ANTHC recommended its complete removal and replacement. The tank is required to be replaced.
CORRECTIVE ACTION	07/01/2024	Raw water storage tank is not structurally sound. According to previous surveys, the condition of the tank is beyond repair. As stated previously, the tank is required to be replaced.
CORRECTIVE ACTION	07/01/2024	Given its current configuration, the system cannot meet the minimum requirement of 0.5-log inactivation of Giardia cysts. The 450′ of 8″ PVC pipe from the treatment plant to distribution does not meet CT and there is no CT tank in the system.
CORRECTIVE ACTION	07/01/2024	System does not add coagulant prior to filtration through pressure sand filters, and thus does not meet SWTR requirements. Modification of the treatment process is required. The system can either install coagulation addition prior to filtration or convert to a filtration process that does not require the addition of coagulant.
CORRECTIVE ACTION	07/01/2024	System does not filter as required or meet CT requirements for disinfection. Additionally, system configuration prevents entry point chlorine residual and turbidity monitoring. System modification necessary to meet these requirements.
CORRECTIVE ACTION	07/01/2024	According to the 2013 Sanitary Survey, the treatment plant's valve configuration allows the plant to be fully bypassed, and thus raw water to flow directly to distribution. The system is required to eliminate this cross connection, either by installing an appropriate backflow prevention device or by some other method.
CORRECTIVE ACTION	07/01/2024	The disinfection unit's flow switch is broken. To prevent overfeed or chemical feed failure, the system is required to repair or replace the flow switch.

CORRECTIVE ACTION	07/01/2024	Daily chlorine residual and turbidity measurements are taken at the tribal office. The tribal office as a monitoring location is not representative of water at the entry point of distribution or after filtration. The Karluk Water System was designed before the Surface Water Treatment Rule (SWTR) came into effect. Consequently, appropriate monitoring locations for entry point chlorine residual and turbidity do not exist in the system. The system must continue to monitor for turbidity daily, as well as maintain a minimum chlorine residual level of 0.6 mg/L at the tribal office. If at any point the system begins filtering as required and/or disinfecting as required by meeting CT prior to distribution, monitoring must then be conducted at the appropriate locations.
CORRECTIVE ACTION	07/01/2024	At the time of survey, the system used expired free chlorine reagent powder pillows to monitor for chlorine residual. The system is required to monitor with unexpired reagents.
LCRR		
SUBMIT DRAFT LSL INVENTORY	01/24/2024	OVERDUE: Submit Draft of Lead Service Line Inventory. For more information visit DW LCRR website https://dec.alaska.gov/eh/dw/lcrr/
SUBMIT LEAD SERVICE LINE INVENTORY	10/16/2024	
Sanitary Survey Corrective Actions		
CONSULT DEC - SIG DEFICIENCY (SW)	03/08/2024	OVERDUE: Contact DEC to discuss corrective action plan for significant deficiencies.
Consumer Confidence Report		
CCR - SUBMITTAL	06/30/2025	Submit 2023 Consumer Confidence Report (CCR) to customers and DEC.
CCR - CERTIFICATION PAGE	09/30/2025	Submit CCR Certification Form to DEC.

**NSF = No sample found

1) Periods are three years in length. The current period is 1/1/2023 - 12/31/2025 and the next period will be 1/1/2026 - 12/31/2028. Cycles are nine years in length. The current cycle is from 1/1/2020 - 12/31/2028 and the next cycle is 1/1/2029 - 12/31/2037.
2) Periods for radionuclides (gross alpha, radium 226/228, and uranium) are three or six years in length. The current 6 year period is 01/01/2020 - 12/31/2025, the next 6 year period will be 01/01/2026 - 12/31/2031. Cycles for radionuclides are nine years in length. The current cycle is from 01/01/2017 - 12/31/2025 and the next cycle is 01/01/2026 - 12/31/2034.
3) WL (well) or TP (treatment plant) is the entry point to the distribution system, except for raw water samples and WL (well) is the raw water tap. DS (distribution system) is the home and buildings that receive water from a piped water system.
4) Water quality parameters are tested in order to conduct a corrosion control study. Please contact your engineer, health corporation, or certified laboratories for assistance.
5) Lead/Copper samples on an annual or 3 year schedule should be collected in month of warmest water temperature.
6) Water systems with multiple water sources that do not combine before entering the distribution must take one sample from each entry point to the distribution and may do a composite sample according to 18AAC80.325(17), 18AAC80.315(4).
7) SOC waiver renewal forms are due every three year period. SOC waiver, new and renewal, forms can be found at http://dec.alaska.gov/eh/dw/soc/.
8) Each public water system is required to have a water operator (or operators) certified at or above the drinking water treatment and drinking water distribution level assigned to the system. To check on current level of certification for your water operator please see the Alaska Certified Water/Wastewater Operator Database maintained by the Division of Water: https://dec.alaska.gov/Applications/Water/OpCert/Home.aspx?p=OperatorSearch. If you have questions regarding the water system level or the operator certification level please contact Operator Certification at 907-465-1139 or at dec.water.fco.opcert@alaska.gov.

Monitoring Summaries reflect sample results the Drinking Water Program has record of at the time the summary is drafted (see date at top of summary). If information appears incorrect or is inconsistent with previous monitoring summaries please contact DW staff. Monitoring summaries are part of the DW Program's compliance assistance efforts to summarize requirements to help water systems stay in compliance. However, they do not cover all items that may be required of a Public Water System (PWS), nor does it supersede the regulation requirement as outlined in the Code of Federal Regulations or the Alaska Administrative Code. The PWS owner/operator is required to understand or seek assistance in understanding what regulations apply to their PWS.

Monitoring summary completed by Jordan Ebert, Environmental Program Specialist/ADEC. If you have any questions please contact ADEC at 907-269-3068 or Email: jordan.ebert@alaska.gov Fax: 907-269-7650.

Sincerely,

Jordan Ebert
Environmental Program Specialist