

Monitoring Summary for GRAYLING WATER SYSTEM

Public water system ID#AK2280066

Population: 195

March 19, 2024

Community Water System, Surface water

Requirement	Sample Point ID	Required Sampling Frequency	Last Sample	Next Sample
Sanitary Survey		Every 3 years	08/02/2022	2025
DISTRIBUTION SYSTEM (Facility ID:DS001)				
LEAD AND COPPER	SPDS001PC	2 consecutive 6 month sets, 10 sample(s) per set	11/05/2019	Overdue; Collect ASAP
COLIFORM (TCR)	SPDS001TCR	1 sample(s) monthly	07/05/2023	Contact EPS Prior to Scheduling
HAA5 (HALOACETIC)	-See below-	1 sample(s) annually	08/31/2020	See stage 2 sampling detail information below
TOTAL TRIHALOMETHANE	-See below-	1 sample(s) annually	09/29/2020	See stage 2 sampling detail information below
INTAKE GRAYLING CREEK GALLERY (Facility ID:IN001)				
E. COLI	SPIN001	2 sample(s) monthly	02/07/2018	Overdue; Collect ASAP
TREATMENT PLANT- ALTERNATIVE, POST-CL2 (Facility ID:TP001)				
SOC	SPTP001	1 sample(s) quarterly	11/08/2016	Submit SOC waiver renewal application by Sept 30, 2024
NITRATE	SPTP001	1 sample(s) annually	07/31/2022	Overdue; Collect ASAP
VOC	SPTP001	1 sample(s) annually	07/31/2022	Overdue; Collect ASAP
ARSENIC - SINGLE	SPTP001	1 sample(s) per 9 year cycle	05/08/2012	Between 2020 and 2028
RADIUM 226 AND 228	SPTP001	1 sample(s) per 9 year cycle	10/10/2017	Between 2026 and 2034
TOTAL GROSS ALPHA	SPTP001	1 sample(s) per 9 year cycle	10/10/2017	Between 2026 and 2034
INORGANICS	SPTP001	1 sample(s) per 9 year cycle	07/29/2019	Between 2020 and 2028

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

Contaminant	Sample Pt. ID	Location	Sample Count	Sample Dates
HAA5	SPDS1DBP2-H	CITY OFFICE KITCHEN TAP	1	August 2024
TTHM	SPDS1DBP2-T	CITY OFFICE KITCHEN TAP	1	July 2024

Operator Report

Requirement	Location	Sampling Frequency	Last Report	
TURBIDITY	After Filters	1 samples 20 days per month	02/01/2022	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	12/01/2023	
CHLORINE	Entry Point	1 samples 20 days per month	02/01/2022	
CHLORINE	Entry Point	1 samples 20 days per month	02/01/2022	

Compliance Schedules

Schedule/Action	Due	Comments
Compliance Schedule		
ZLT1 - CORRECTIVE ACTIONS DATE	12/31/2006	No coagulant is added prior to the parallel pressure sand filters and the cartridge filters are not appropriately certified, the filtration system's efficacy is significantly compromised.
Boil Water Notice		
BWN		System is on a long term Boil Water Notice (BWN) Reason: Inadequate treatment, chlorine residuals 0.00 mg/L. To lift BWN: Needs complete operator report w/ chlorine residual at 0.3 mg/L & turbidity, and 3 Total Coliform monthly samples, with detectable chlorine residual.
BWN-HAND DELIVER/CONTINUOUSLY POST NTCE	07/12/2022	OVERDUE: PN required due to detection of E. coli in a routine TC sample.
LCRR		
SUBMIT DRAFT LSL INVENTORY	04/24/2024	Submit Draft of Lead Service Line Inventory for more information visit DW LCRR website https://dec.alaska.gov/eh/dw/lcrr/
COMPLETE INITIAL LSL INVENTORY	10/16/2024	
SUBMIT LEAD SERVICE LINE INVENTORY	10/16/2024	
Correct Sanitary Defect		
RTCR-CORRECT SD - FFIL SANITARY DEFECT	07/12/2023	The current filtration configuration does not surface water treatment requirements and is temporary while the water system is undergoing treatment upgrades. The water pressure in the distribution system drops below 20 PSI. Water meters and gauges not operating properly (DS001). Distribution circulation pump (Loop 1) is nonfunctional (DS001). A detectable disinfectant residual is not being maintained throughout the distribution system. Storage tank is not clean with sediment build-up observed. Storage tank overflow line is not screened and does not terminate a minimum of 2 times the diameter of the outlet pipe above the ground. Storage tank roof-top vent is not screened. Disinfection equipment is not operated and maintained properly, and disinfectant feed is not proportional to water flow. There are Multiple inadequately protected cross connections are currently present at TP001. Failure of disinfection pump. There is an inadequate chlorine residual at the entry point to the distribution system. Current bag filtration does not meet surface water treatment requirements. Pressure gauges are not available to monitor pressure differentials for filter replacement. A sample tap is not present to assess filter performance. As the system is currently configured, it is unable to meet surface water treatment requirements. There were not any spare bag filters on hand at the time of the sanitary survey. The new WTP should address many of the Sanitary Defects listed above. For a more detailed description of each Sanitary Defect, please refer to the 2022 Sanitary Survey & Level 2 Assessment inspection report.

Sanitary Survey Corrective Actions

CONSULT DEC - SIG DEFICIENCY (SW)	06/12/2023	OVERDUE: Contact EPS or Leslie Morrison at leslie.morrison@alaska.gov 907-269-5067 to discuss a corrective action plan
CORRECTIVE ACTION	09/11/2023	OVERDUE: Please evaluate which one of your portable turbidimeters can best accommodate your current needs, ensure that a full set of standards are available for that turbidimeter, purchasing any missing standards which are needed, and then ensure that the turbidimeter is calibrated per the manufacturer's specifications. Once all of these tasks have been completed, please provide written and photo verification as needed to the DEC.
CORRECTIVE ACTION	09/11/2023	OVERDUE: The operator indicated that Grayling Creek has frozen down to the intake in previous winters. When this has occurred, they have found another deeper location upstream, cut a hole in the ice, and inserted a submersible pump to temporarily pump raw water from that location. As this is a recurring issue, there should be a plan in place to formally address this on a temporary and long-term basis.
CORRECTIVE ACTION	09/11/2023	OVERDUE: There is not an adequate supply of critical spare parts for the existing chlorine pump.
CORRECTIVE ACTION	09/11/2023	OVERDUE: When the bag filters were relocated to accommodate the current treatment plant upgrades, a post filtration sample tap was not installed to allow for monitoring post filtration turbidity levels. A sample tap should be available to permit both compliance and process turbidity monitoring of the filter effluent. Compliant inline post filtration turbidity monitoring will be available with the treatment plant upgrades (expected to be operational in the next couple months), but if possible, and especially of commissioning of the upgrades continue to be delayed, a post filtration sample tap should be installed in the interim. Please contact the DEC Drinking Water Program about a plan to address this or submit photo documentation of the installed tap if you decide to proceed with installation at this time.
CORRECTIVE ACTION	09/11/2023	OVERDUE: The chlorine pump is manually plugged into the wall with a lag between this event and when the raw water pumps are turned on, so disinfectant is routinely added when no water is flowing. The treatment upgrades which are reportedly expected to be operational in the next couple of months will resolve this deficiency.
CORRECTIVE ACTION	09/11/2023	OVERDUE: It is recommended that the chlorine test kit is replaced with a newer model, and an adequate supply of unexpired chlorine test reagent needs to be purchased. Please provide photo and/or other documentation to verify adequate chlorine testing equipment and reagents.

CORRECTIVE ACTION	09/11/2023	OVERDUE: Not all required calibration standards are present with some of the portable turbidimeters. Please evaluate which one of your portable turbidimeters can best accommodate your current needs, ensure that a full set of standards are available for that turbidimeter, purchasing any missing standards which are needed, and then ensure that the turbidimeter is calibrated per the manufacturer's specifications. Once all of these tasks have been completed, please provide written and photo verification as needed to the DEC.
Consumer Confidence Report		
CCR - SUBMITTAL	06/30/2024	
CCR - CERTIFICATION PAGE	09/30/2024	

Public Notice Schedules			
PN Action	PN Due	Certification Due	Comments
PN-TIER 2 PUBLIC NOTICE REQUIRED	03/15/2024	03/26/2024	OVERDUE: Fill out and post the tier 2 PN required for failure to correct level 2 corrective actions by 07/12/2023. PN must be repeated every three months as long as the violation or situation persists. Return signed PN to EPS
PN-TIER 1 PUBLIC NOTICE REQUIRED	11/15/2023	11/27/2023	OVERDUE: Fill out and post that tier 1 PN issued for July 2022 & May 2023 E. Coli MCL violation. Return signed PN to EPS

**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 Kristine Crippen, Environmental Program Specialist/ADEC. If you have any questions please contact ADEC at 907-269-7521 or 1-866-956-7656 Email: kristine.crippen@alaska.gov Fax: (907) 269-7650.

Sincerely,

Kristine Crippen

