

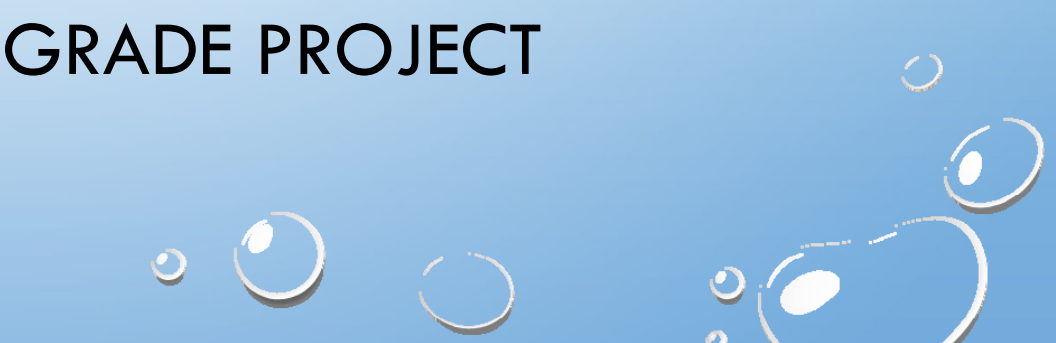
# UNALASKA WATER DIVISION

CITY COUNCIL UPDATE – JULY 11, 2023





# DISCUSSION TOPICS

- PFAS IN THE NEWS
  - PFAS IN UNALASKA
  - UNALASKA CONSUMER CONFIDENCE REPORT 2022
  - UPDATE ON CHLORINE UPGRADE PROJECT
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# PFAS IN THE NEWS

- PFAS STANDS FOR PER- AND POLYFLUOROALKYL SUBSTANCES, A GROUP OF OVER 4700 HUMAN-MADE CHEMICALS THAT ARE HARMFUL TO HUMAN HEALTH AND THE ENVIRONMENT
- PFAS ARE KNOWN AS “FOREVER CHEMICALS” BECAUSE THEY DON’T NATURALLY BREAK DOWN IN THE ENVIRONMENT AND BUILD UP IN OUR BODIES OVER TIME
- THE U.S. GEOLOGICAL SURVEY PUBLISHED A STUDY ON JULY 6 STATING THAT AT LEAST ONE PFAS COULD BE DETECTED IN ABOUT 45% OF U.S. DRINKING WATER
- 19.2% OF TAP WATER SAMPLES FROM PUBLIC WATER SYSTEMS HAD PFOA LEVELS ABOVE THE EPA PROPOSED MAXIMUM CONTAMINANT LEVEL (MCL) OF 4 PARTS PER TRILLION (PPT)
- 11.5% OF SAMPLES HAD PFOS LEVELS ABOVE THE EPA MCL OF 4 PPT

# REGULATORY BACKGROUND

- THE EPA STARTED REGULATING PFAS IN 2009 WHEN THEY BEGAN RELEASING PROVISIONAL HEALTH ADVISORIES
- THE EPA MONITORED LEVELS OF PFAS IN DRINKING WATER SUPPLIES 2013 – 2015
- IN 2016, THE EPA SET A MAXIMUM CONTAMINANT LEVEL (MCL) OF 70 PARTS PER TRILLION
- IN 2019, SOME STATES BEGAN REGULATING MORE STRICTLY THAN THE EPA, SETTING MAXIMUM CONTAMINANT LEVELS OF 20 PARTS PER TRILLION
- IN 2023 THE EPA IS PROPOSING A MAXIMUM CONTAMINANT LEVEL OF 4 PARTS PER TRILLION



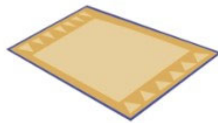
Non-stick cookware



Fast food packaging



Water-resistant clothing



Stain-resistant carpet  
and furniture

## SOURCES of PFAS



Paints



Cosmetics and personal  
care products



Firefighting foam




Pesticides

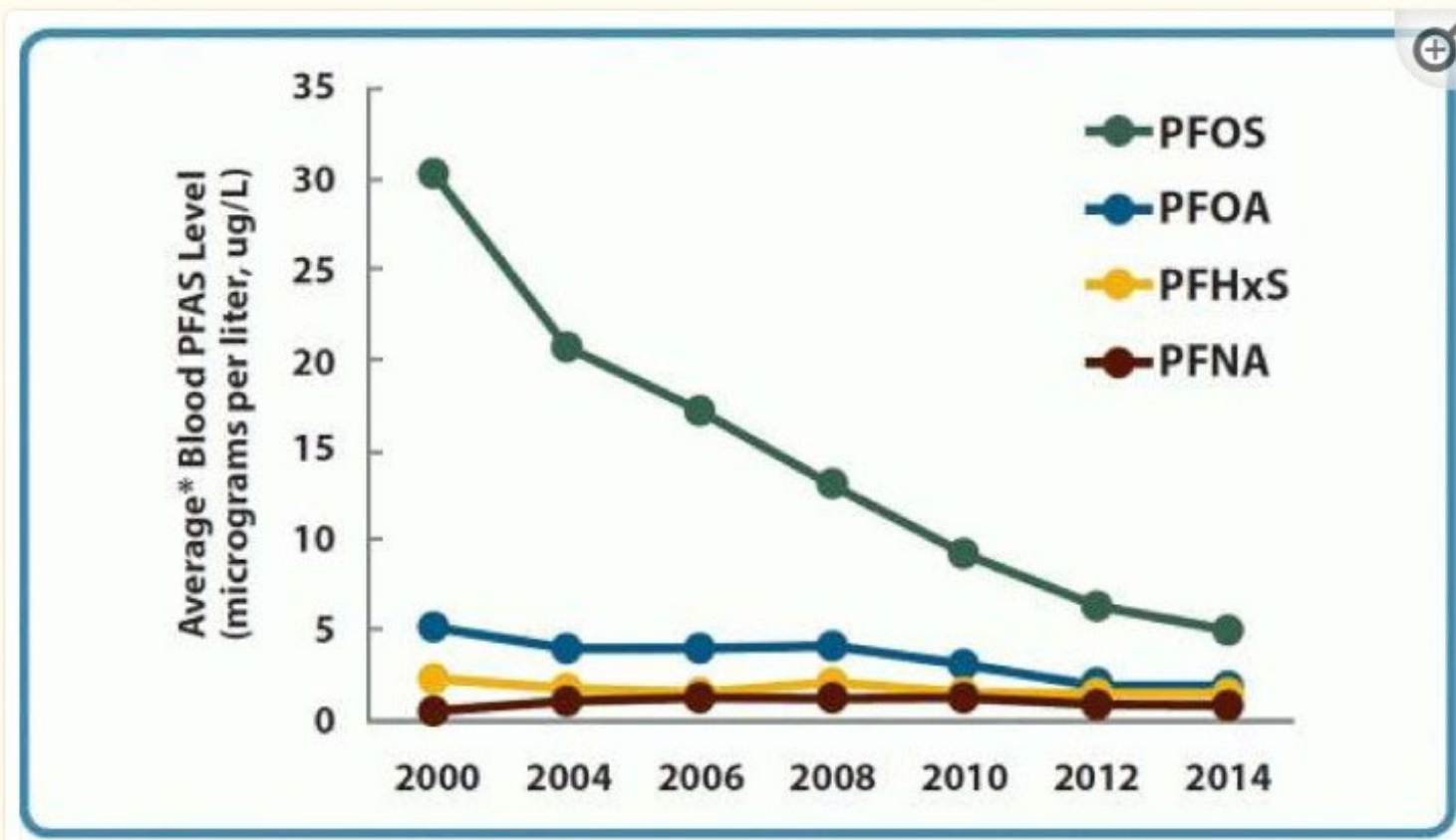
AQUEOUS FILM  
FORMING FOAM  
(AFFF)

MILITARY STARTED  
USING AFFF IN THE  
LATE 60'S



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- **HAVE TO STOP PURCHASING AFFF IN 2023**
  - **HAVE TO PHASE OUT USAGE IN 2024**

# HISTORICAL PFAS BLOOD LEVELS





# PFAS IN UNALASKA

- UNALASKA WATER DIVISION TESTED ALL WATER SOURCES (WELLS 1A, 2, 3, & PWTP) FOR PFAS IN DECEMBER 2021
- FIFTH UNREGULATED CONTAMINANT MONITORING RULE (UCMR 5) IS CURRENTLY ON-GOING WITH MORE THAN 3,500 WATER SYSTEMS MONITORING FOR 29 DIFFERENT PFAS
- A TOTAL OF 10,500 WATER SYSTEMS WILL BE PARTICIPATING BY THE END OF 2025

# WELL 2 – TEST RESULTS



## Detectable Results Summary

Client Sample ID: **Well 2**

Lab Sample ID: 32200003003-A

**EPA 537.1**

Parameter  
PFOS

Result  
1.25

Units  
ng/L J

# WHAT DOES IT MEAN?

- THE MAJORITY OF THE ISLAND'S WATER COMES FROM THE PYRAMID WATER TREATMENT PLANT (SURFACE WATER) WHICH HAS NO TRACE OF PFAS.
- WHILE THE LEVEL IS VERY LOW, WE WILL MONITOR REGULARLY. WELL HOUSE #2 IS NORMALLY BLENDED WITH THE OTHER WELLS, DROPPING THE OVERALL LEVEL BELOW THE DETECTION LIMIT AT THE TAP.
- WHEN POSSIBLE, WE COULD MINIMIZE OPERATION OF WELL HOUSE #2.

# UNALASKA CONSUMER CONFIDENCE REPORT 2022

## Violations, Enforcement, and Compliance

For May, the water system had one minor violation due to [2] missing total coliform samples and two major violations due to missing residual chlorine reports that accompany each total coliform sample. To comply with regulations and to ensure our water is safe to drink, each month we are required to take [10] total coliform samples throughout the water system and report the residual chlorine for each sample. There was an oversight of these requirement in May, resulting in [8] total coliform samples taken instead of [10]. The required [10] total coliform samples and associated chlorine residual were taken for all other months. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

- MAY 2022 – DID NOT TAKE THE TWO SAMPLES SCHEDULED FOR MAY 31 UNTIL JUNE 1<sup>ST</sup>, RESULTING IN ONLY 8 SAMPLES TAKEN IN THE MONTH OF MAY.

Contaminant	Action level	90 <sup>th</sup> percentile	# of homes exceeding Action level	MCLG	Typical Source of Substance	Health Effects
Lead (ug/L) (Tested 2021)	15.00	<b>3.42</b>	0 out of 20 tested	0	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Copper (ug/L) (Tested 2021)	1300.00	<b>1030.00</b>	2 out of 20 tested	1300.00	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

# PYRAMID WATER TREATMENT PLANT CHLORINE UPGRADE

- PROJECT HAS BEEN ON-LINE SINCE 5/27
- BESIDES BEING MUCH SAFER THAN CHLORINE GAS, OUR WATER SHOULD BE LESS CORROSIVE. THIS SHOULD IMPROVE OUR COPPER NUMBERS IN FUTURE TESTING.
- YOU MAY NOTICE YOUR WATER IS “SOFTER”



LOOKING WEST





LOOKING SOUTH







ANY QUESTIONS?

