

PER- AND POLYFLUOROALKYL SUBSTANCE (PFAS) SITE CATEGORIZATION AND RECOMMENDATIONS:

Exposure to per- and polyfluoroalkyl substances (PFAS) is widespread and many of our local, tribal state, and federal partners may need help in addressing concerns over PFAS-contaminated water supplies. This document is intended to guide action in communities with PFAS-contaminated drinking water.

Purpose: This tool should be used to categorize PFAS sites in order to determine recommendations for public health action. The algorithm is designed to ensure that responses at PFAS sites are consistent and result in the necessary action to mitigate exposure and prevent potential adverse health outcomes.

Audience: This document is intended for use by NCEH/ATSDR staff, APPLETREE states, and other state and local officials, as needed.

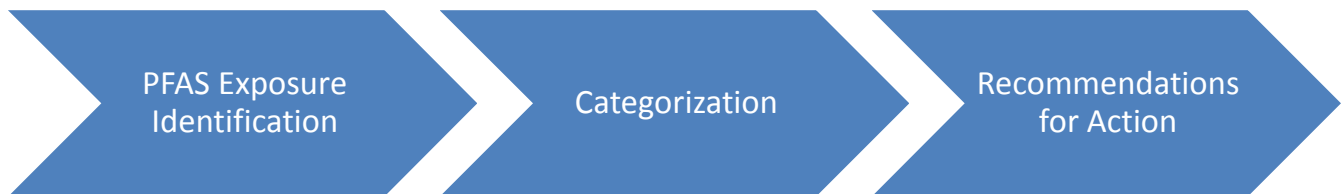
Overview:

Following the identification of sites with potential PFAS exposure, sites will be assigned a category based on four criteria:

1. Exposure Pathway
2. Data Availability
3. Drinking Water Concentration
4. Exposure Mitigation Status

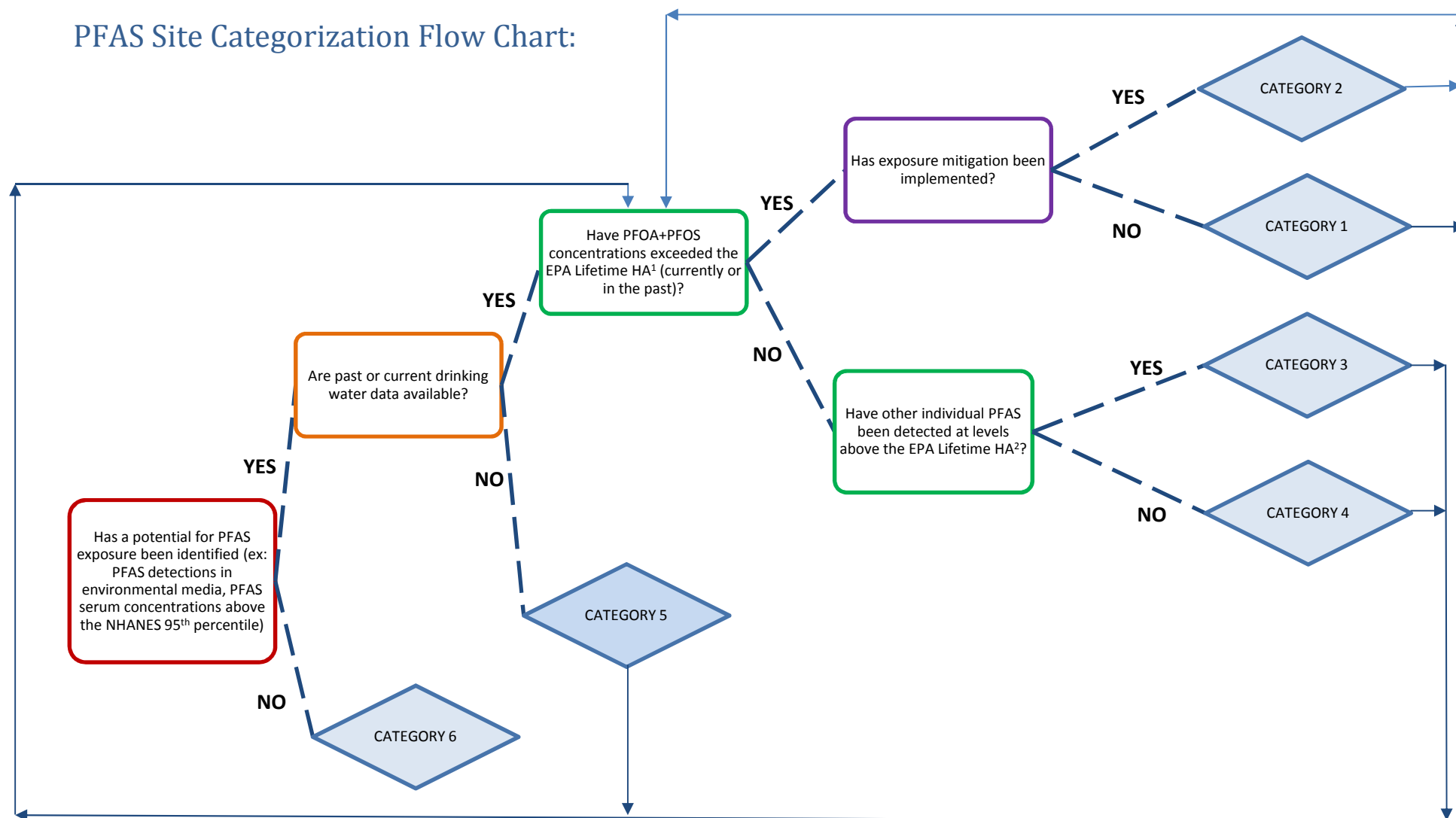
NOTE: Criteria colors correspond to decision point blocks on the associated flow chart.

Recommended actions will be determined based on category.



Instruction for Use: Progress through the flow chart from left to right. At each step, move through the flow chart to determine the site category. When a category is assigned, proceed to the recommended actions table to determine next steps.

PFAS Site Categorization Flow Chart:



¹ EPA Lifetime HA - U. S. Environmental Protection Agency Lifetime Health Advisory for PFOA and PFOS (70 parts per trillion, individually or combined)

² The EPA Lifetime HA will be applied at this decision point as a proxy to identify sites with elevated non-PFOA/PFOS concentrations for further analysis. The EPA Lifetime HA will not be used for quantitative risk assessment of non-PFOA/PFOS species.

Note: Sites should be re-evaluated when mitigation status changes or new data become available. Thin (non-bold) blue lines indicate places where sites will be re-evaluated following collection of additional data.

Recommended Actions:

Category	Description	Recommended Actions
1	Drinking water concentrations (past or current) above EPA Lifetime HA, no mitigation in place	ATSDR - Assist state and local partners, as needed, with identification, development, planning, implementation, and evaluation of appropriate response activities such as exposure investigations, health education, communications, and biomonitoring. - Evaluate the availability and use of data from NCEH's National Environmental Public Health Tracking Network (Tracking Network). Assess the ability and benefit of adding relevant data onto the Tracking Network. - Collaborate and share information with EPA and other federal, state and local environmental agencies as they work to identify sources, in order to inform ATSDR's public health evaluations. State/Local Partners (Public Health and Environment) - Facilitate immediate action to bring drinking water concentrations below the EPA Lifetime HA. - If source of drinking water is <u>surface water</u>, implement long-term mitigation plan to reduce exposure. - If source of drinking water is <u>groundwater</u>, identify exposure points (groundwater wells and springs) with PFAS exceeding the EPA Lifetime HA and take them offline or implement actions to reduce exposure. - Evaluate drinking water system distribution operations to characterize PFAS concentrations at the point of exposure. - If drinking water concentrations at the point of exposure are above the EPA Lifetime HA, and quick action cannot be taken to reduce levels, affected community members should be provided an alternative water supply (e.g., bottled water). - Educational outreach for community members, sensitive populations, and local physicians [INSERT LINK TO ATSDR PHYSICIAN EDUCATION GUIDANCE]. - Continue to monitor drinking water to ensure concentrations stay below the EPA Lifetime HA, according to EPA recommendations [INSERT LINK]. - Consider statistically based biomonitoring investigation and other exposure assessment activities (see the NCEH/ATSDR PFAS Exposure Assessment Technical Tools). - Ensure all water filtration systems are properly monitored and maintained. - Consider other possible exposure points (including nearby private wells and public water systems and non-drinking water exposures) and collect additional data as needed. - Collaborate and share information with federal, state and local environmental agencies as they work to identify sources.

Category	Description	Recommended Actions
2	Drinking water concentrations (past or current) above EPA Lifetime HA, mitigation in place	ATSDR - Assist state and local partners, as needed, with identification, development, planning, implementation, and evaluation of appropriate response activities such as exposure investigations, health education, communications, and biomonitoring. - Evaluate the availability and use of data from NCEH's National Environmental Public Health Tracking Network (Tracking Network). Assess the ability and benefit of adding relevant data onto the Tracking Network. - Collaborate and share information with EPA and other federal, state and local environmental agencies as they work to identify sources, in order to inform ATSDR's public health evaluations. State/Local Partners (Public Health and Environment) - Evaluate drinking water system distribution operations to characterize past PFAS concentrations at the point of exposure. - Educational outreach for community members, sensitive populations, and local physicians [INSERT LINK TO ATSDR PHYSICIAN EDUCATION GUIDANCE]. - Continue to monitor drinking water to ensure concentrations stay below the EPA Lifetime HA, according to EPA recommendations [INSERT LINK]. - Consider statistically based biomonitoring investigation and other exposure assessment activities (see the NCEH/ATSDR PFAS Exposure Assessment Technical Tools). - Ensure all water filtration systems are properly monitored and maintained. - Consider other possible exposure points (including nearby private wells and public water systems and non-drinking water exposures) and collect additional data as needed. - If source of drinking water is surface water, consider other environmental/biological data (e.g. fish tissue). - Collaborate and share information with federal, state and local environmental agencies as they work to identify sources.
3	Drinking water concentrations (past and current) below EPA Lifetime HA (PFOS + PFOA), other individual PFAS detected above EPA Lifetime HA.	ATSDR - Assist state and local partners, as needed, with identification, development, planning, implementation, and evaluation of appropriate response activities such as exposure investigations, health education, communications, and biomonitoring. - Evaluate the availability and use of data from NCEH's National Environmental Public Health Tracking Network (Tracking Network). Assess the ability and benefit of adding relevant data onto the Tracking Network. - Collaborate and share information with EPA and other federal, state and local environmental agencies as they work to identify sources, in order to inform ATSDR's public health evaluations. State/Local Partners (Public Health and Environment)

Category	Description	Recommended Actions
		- Evaluate drinking water exposures to PFAS species according to state or local guidelines where available. - If a potential public health hazard is identified, evaluate PFAS concentrations at the point of exposure and take steps to reduce exposure. - Educational outreach for community members, sensitive populations, and local physicians [INSERT LINK TO ATSDR PHYSICIAN EDUCATION GUIDANCE]. - Continue to monitor drinking water to ensure concentrations of PFOA+PFOS stay below the EPA Lifetime HA, according to EPA recommendations [INSERT LINK]. - Consider other possible exposure points (including nearby private wells and public water systems and non-drinking water exposures) and collect additional data as needed. - Consider statistically based biomonitoring investigation and other exposure assessment activities (see the NCEH/ATSDR PFAS Exposure Assessment Technical Tools). - Collaborate and share information with federal, state and local environmental agencies as they work to identify sources.
4	Drinking water concentrations (past and current) below EPA Lifetime HA (PFOS + PFOA)	ATSDR - Assist state and local partners, as needed, with identification, development, planning, implementation, and evaluation of appropriate response activities such as health education and communications. - Collaborate and share information with EPA and other federal, state and local environmental agencies as needed. State/Local Partners (Public Health and Environment) - Evaluate drinking water exposures to PFAS species according to state or local guidelines where available. - If a potential public health hazard is identified, evaluate PFAS concentrations at the point of exposure and take steps to reduce exposure. - Educational outreach for community members, sensitive populations, and local physicians [INSERT LINK TO ATSDR PHYSICIAN EDUCATION GUIDANCE]. - Continue to monitor drinking water to ensure concentrations stay below the EPA Lifetime HA, according to EPA recommendations. - Consider other possible exposure points (including nearby private wells and public water systems and non-drinking water exposures) and collect additional data as needed. - Collaborate and share information with federal, state and local environmental agencies as needed.
5	Potential exposure pathway, no drinking water data	ATSDR - Assist state and local partners, as needed, to characterize exposure pathways. - Assist state and local partners, as needed, with identification, development, planning, implementation, and evaluation of

Category	Description	Recommended Actions
		appropriate response activities such as health education and communications. • Collaborate and share information with EPA and other federal, state and local environmental agencies as needed. State/Local Partners (Public Health and Environment) • Evaluate any available environmental or biomonitoring data and collect drinking water data in order to characterize exposure pathways. • Consider other possible exposure points (including nearby private wells and public water systems and non-drinking water exposures) and collect additional data as needed. • Collaborate and share information with federal, state and local environmental agencies as needed.
6	No potential pathways of exposure	ATSDR • Assist state and local partners, as needed. • Inform EPA of our findings and next steps. State/Local Partners (Public Health and Environment) • Collaborate and share information with federal, state and local environmental agencies as needed.