

Moving Forward with our PFAS Investigation

NASA continues to address historical PFAS use at Wallops to assess known or suspected releases to the environment.

We've made progress since we began investigating in 2016 and we continue working on several important initiatives:



PFAS is removed from the Town's water supply wells by a treatment system constructed and operated by NASA.

Protecting the area's water supply

NASA constructed and is operating a groundwater treatment system to remove PFAS from the Town's supply wells.

Over 120 million gallons of groundwater treated through December 2023

Regular testing of Town wells and the treated drinking water shows PFAS are successfully removed.

NASA shares results with the Town, State and federal environmental and health agencies

In 2023, NASA installed a new water supply well for NASA Wallops.

This well supplements the NASA Wallops Main Base drinking water supply

Samples are sent to EPA-certified labs for analysis.



A field technician collects water samples.

Monitoring PFAS in the environment

Regular groundwater monitoring is conducted to understand the nature and extent of PFAS at and in the vicinity of Wallops.

Surface water sampling in Jenny's Gut and Little Mosquito Creek is ongoing to help NASA understand:

How groundwater and surface water interact

How PFAS are moving in the environment

What areas may require PFAS cleanup activities

Which remedial technologies are most effective



Workers collect deep groundwater samples with the help of drill rigs.

Tracking New Regulations & Developments

NASA is using the latest scientific information to investigate PFAS.

New and previously taken samples are evaluated using the most recent EPA screening levels for groundwater and soil.

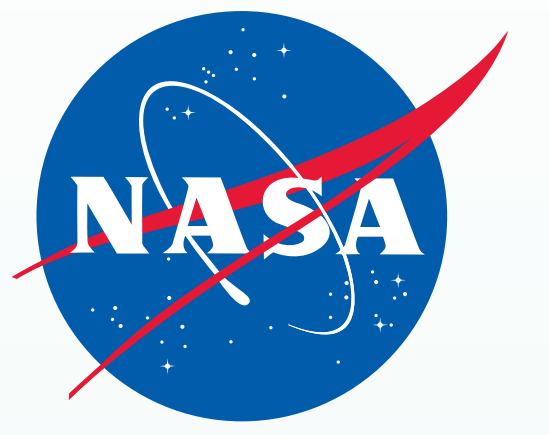
New regulations and developments:

-A national drinking water standard for 6 PFAS finalized by EPA on April 10, 2024.

-EPA-approved analytical methods for 29 unique PFAS in drinking water, and up to 40 more draft methods under consideration.

-14 PFAS regional screening levels for groundwater and soil.

-Surface water quality criteria for the protection of human health (expected fall 2024)



Targeted Cleanup and Pilot Studies

NASA is conducting studies to contain or remove possible PFAS source areas.

These efforts help to ensure the protection of public health and the environment.

A groundwater seep containing PFAS was discharging to surface water near Main Base Outfall 3. NASA designed and installed a treatment system in 2022 to capture seep water and remove PFAS before discharging back to the surface water. System monitoring and upgrades in 2022 and 2023 have increased effectiveness.



NASA designed a treatment system to remove PFAS from surface water near Outfall 3.

Testing of various treatment methods began in 2022 at the Main Base Outfalls 3 and 10 to remove PFAS in groundwater before it enters Little Mosquito Creek and Jenny's Gut. Adsorbent material that captures PFAS in its pores was placed along the stream bed and right into the stream flow in certain places. Design is currently underway on methods to prevent PFAS from entering the streams.



Adsorbent materials often contain activated carbon that captures PFAS from surface water.

Shallow groundwater containing PFAS was discovered entering the wastewater collection system on Wallops Island in 2022. NASA permanently sealed two manholes and repaired a broken wastewater line in June 2023 to reduce groundwater infiltration. Post-repair sampling has shown a decrease of greater than 80% in PFAS entering the system to the lowest levels since sampling began in 2017.



Workers repair the Island manhole and pipe that reduced PFAS concentrations entering the Wallops wastewater treatment plant by 80%.

The Wallops Wastewater treatment plant (WWTP) effluent that discharges to surface water at Main Base Outfall 1 has detected levels of PFAS. NASA has been testing treatment removal technologies to design and implement a treatment system to remove PFAS from the WWTP effluent.



NASA testing apparatus that is being used to evaluate effectiveness of various adsorbents to remove PFAS from the Wallops WWTP effluent.