



# Environmental investigation PFAS – Norfolk Island Fact Sheet 2

## Background

Elevated levels of per- and poly-fluoroalkyl substances (PFAS) have been detected in water samples from three sites on public land within the headwaters of the Mission Creek catchment directly below the aviation fire services training drill ground, adjacent to Norfolk Island International Airport. Please see [PFAS – Norfolk Island Fact Sheet](#) for further background information.


Further, detailed environmental investigation and assessment is now required to identify the nature and extent of PFAS in the local environment related to the historical use of firefighting foams at Norfolk Island International Airport for training activities, and identify potential exposure pathways to people or the environment.

## The detailed environmental investigation

The Department of Infrastructure, Transport, Cities and Regional Development (the Department) has engaged Senversa to conduct the environmental investigation, which will likely include a Human Health Risk Assessment (HHRA) for Norfolk Island. The purpose of this investigation, which will take a number of months to complete, is to understand how the environment may have been affected by legacy fire-fighting foams containing PFAS. The information collected will assist the Australian Government to understand the environmental exposure and contribute to developing appropriate management strategies in relation to any potential human and environmental exposure pathways.

The CSIRO's Norfolk Island Water Resource Assessment (NIWRA) project scope was expanded to ensure sampling and testing commenced as soon as possible. CSIRO conducted additional testing of a number of properties within the Mission Creek catchment on 21 to 23 December, with a focus on drinking water, specifically taps and tanks on the properties, along with some bores. The analysis from this sampling will allow for initial advice to those property owners as well as contributing to the overall investigation. The CSIRO's NIWRA project has now returned to an exclusive focus on an assessment of hydrology and hydrogeology and options for increasing the community's water security, while Senversa focuses on PFAS.

Senversa is experienced in undertaking PFAS preliminary and detailed site investigations and human health risk assessments and has worked on numerous Defence and airport sites across Australia. The investigations are done in accordance with the National Environmental Protection (Assessment of Site Contamination) Measure (NEPM) framework and PFAS National Environmental Management Plan (NEMP).



The investigation will include:

- sampling of soil, sediment, surface water and groundwater and analysis to understand PFAS concentrations in various locations across Norfolk Island, including the Mission Creek catchment
- identifying pathways and receptors of PFAS. A 'receptor' is a person or thing (e.g. plant or animal) that can be exposed to these compounds. A 'pathway' is the way in which they can be exposed (e.g. drinking water or eating food containing these compounds)
- community and stakeholder engagement, including completing water-use surveys with members of the community to help identify how people could be exposed

Should the preliminary or detailed investigation confirm concentrations of PFAS exceed appropriate screening levels, a Human Health and/or Ecological Risk Assessment will be undertaken. The risk assessment will evaluate potential risks to the human population and ecology, and inform future action to mitigate risks.

Senversa's initial on-Island field work from 13–24 January will involve collection of a range of samples from various locations across Norfolk Island. Testing on private land will only occur with property owners' consent. These samples will then be returned to the mainland for laboratory analysis, after which the results will be analysed and interpreted by Senversa.

The interpretation of the data collected through this initial analysis will inform more detailed health advice, while also determining if further investigation is required and, if so, what that would involve.

During the sample collection, there will be community information sessions to provide details on the investigation process, including likely timelines for further information, and to answer questions.

## Investigation outcomes


When environmental investigation reports are finalised, they will be publicly released and the Government will consult with residents, businesses and local stakeholders on the findings.

## Using Mission Creek catchment water for drinking

As consuming water containing above guidance levels of PFAS is not recommended, as a precaution, the Department recommends not drinking water from any underground or creek sources within the Mission Creek catchment around the airport or using bore water taken from that catchment to re-fill rainwater tanks that supply drinking water, until further notice. Alternative water is available to residents in the catchment by contacting the Department's on-Island team on 23315 or [NIPFAS@infrastructure.gov.au](mailto:NIPFAS@infrastructure.gov.au).

## About per- and poly-fluoroalkyl substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals which were used historically in a wide range of industrial and household applications globally. Some types of PFAS have been used in fire-fighting foams, particularly at places like airports, fuel storage facilities, and Defence bases, because they are very effective at extinguishing liquid fuel fires. PFAS were also used across Australia and internationally in a range of common household products and specialty applications, including in the manufacture of non-stick cookware;



fabric, furniture and carpet stain protection applications; food packaging and in some industrial processes. As a result, most people living in the developed world will have levels of PFAS in their body.

PFAS are emerging as a concern around the world because they are persistent and highly mobile in the environment. Currently there is limited evidence of significant impacts on human health from exposure to PFAS chemicals. Research in Australia and overseas continues to be undertaken.

## Where can I get more information?

Residents are welcome to contact the Department's on-Island team on 23315 or [NIPFAS@infrastructure.gov.au](mailto:NIPFAS@infrastructure.gov.au)

For more information on PFAS generally, visit [PFAS.gov.au](http://PFAS.gov.au).

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