

Mackay Airport and firefighting foam

Airservices' role at Mackay Airport

Airservices Australia is a government-owned organisation that was established in 1995 to provide air navigation and aviation rescue fire fighting services (ARFFS). Airservices has provided these life-saving rescue and fire fighting services at Mackay Airport since 1995. Prior to that, they were provided by former Commonwealth agencies.

Use of fire fighting foam at Mackay Airport

Airservices does not use fire fighting foam containing per- and poly-fluoroalkyl substances (PFAS) at Mackay Airport nor at any other civil airport in Australia.

Airservices began transitioning away from these foams in the early 2000s when concerns first started to emerge about the possible environmental impacts of these chemicals. Airservices has been using PFAS-free fire fighting foam since 2010.

From the early 1980s until the early 2000s, a fire fighting foam called 3M Lightwater was used by various industries around the world. This Aqueous Film Forming Foam (AFFF) was particularly effective for fighting liquid fuel fires and was widely adopted both in Australia and around the world. This product contained perfluorooctane sulfonate (PFOS) as an active ingredient and other PFAS, such as perfluorooctanoic acid (PFOA). In the early 2000s, following concerns that started to emerge about the possible environmental effects of PFAS, Airservices made the decision to change its fire fighting foam to a product called Ansulite which was thought to not contain PFOS. It was later found to contain trace amounts of these chemicals. Since 2010, Airservices has a PFAS-free foam, Solberg RF6 at all civilian airports where it operates, including at Mackay Airport.

What action has Airservices taken at Mackay Airport?

Airservices is taking a proactive and evidenced-based approach to managing PFAS contamination arising from the historical, or legacy-use, of fire fighting foam containing PFAS, at its leasehold sites.

▪ Foam transition and testing

Airservices has stopped using foams containing these chemicals. Airservices has been testing and monitoring for these chemicals, since 2008. Testing at Airservices-leased areas at Mackay Airport, including at the Fire Training Ground (FTG) and Fire Station (FS) and attached workshop, confirmed these chemicals in groundwater and surface water.

▪ Investigation and characterisation

Airservices engaged independent consultants GHD Pty Ltd to undertake a Preliminary Site Investigation (PSI) and limited sampling program at Mackay Airport, to better understand potential impacts from Airservices' prior use of these foams. Individual airport PSIs are part of Airservices' National PFAS Management Program.

Following the PSI, Airservices commissioned further, targeted investigations to better characterise PFAS on and off-airport including offsite sampling of sediment, surface water and biota in Shellgrit Creek. A water survey was also commissioned of neighbouring properties to the south and east of the Airport.

Results

The PSI found PFAS contamination on the airport at and near where firefighting activities took place using legacy AFFFs, including locations not associated with Airservices activities.

The PSI report indicated PFAS was detected at low levels in soils and sediments. The PSI also indicated PFAS was detected in groundwater and surface water on-airport above human health guidelines indicating further investigations were required. However the report noted it was unlikely that groundwater onsite or in the vicinity is extracted for potable purposes.

Airservices has shared the PSI with Mackay Airport, NQA and the Department of Environment and Science (DES).

The PSI is available [here](#).

The targeted offsite sampling showed PFAS detected above human health guidelines in fish sampled in Shellgrit Creek adjacent to the airport. The exact source of the PFAS is unknown as there has been other historical users of PFAS products at the airport. Airservices notified the Mackay Airport and the Queensland state regulator so that appropriate action can be taken. The results of the water survey indicated there are no known properties in the south and east of the airport using groundwater bores for drinking water or irrigation.

The report of these further investigations will be published on Airservices' website when complete.

Next steps

Airservices will now be undertaking further investigations in the form of a Detailed Site investigation (DSI). Airservices will continue to work with the relevant Commonwealth and State environmental regulators and health authorities and the airport, as part of a risk-based approach to responsibly manage PFAS at Mackay Airport.

More information

Airservices Australia – Airport-specific information:

<https://www.airservicesaustralia.com/community/environment/pfas/>

Commonwealth Department of Health – Per and Poly-fluoroalkyl substances (PFAS):

<http://www.health.gov.au/internet/main/publishing.nsf/content/ohp-pfas.htm>

Commonwealth PFAS website: <http://www.pfas.gov.au/>

DES Queensland – PFAS Contamination: <https://www.des.qld.gov.au/>