Australian Government
Department of Infrastructure, Transport, Regional Development, Communications and the Arts

INQUIRY INTO THE EXTENT, REGULATION AND MANAGEMENT OF PFAS

SUBMISSION TO THE SELECT COMMITTEE ON PFAS (PER AND POLYFLUOROALKYL SUBSTANCES)

6 November 2024

Introduction

This submission sets out the Department of Infrastructure, Transport, Regional Development, Communications and the Arts' roles and engagement in relation to per and polyfluoroalkyl substances (PFAS). The majority of the department's PFAS activities relate to the investigation and environmental regulation of PFAS at civilian airports. The department also undertakes PFAS investigation and management activities at the territories of Norfolk Island and Jervis Bay.

The department's approach to PFAS management is underpinned by the Intergovernmental Agreement on a National Framework for Responding to PFAS Contamination (PFAS IGA), compliance with national guidance documents and best practice, and proactive stakeholder engagement.

1. Environmental Regulation of Leased Federal Airports

The department is responsible for environmental regulation at 20 of the 22 leased federal airports[1] under the *Airports Act 1996* (the Act) and the Airports (Environment Protection) Regulations 1997 (the Regulations). These airports are located on Commonwealth land and have been leased on a long-term basis to Airport Lessee Companies (ALCs).

- The 2 leased federal airports that are not covered by the Act and the Regulations are regulated by the relevant state or territory environment protection authority, or are managed by the Department of Defence (Defence).
- Non-federally leased airports are regulated by the relevant state or territory environment protection authority.

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[1] The 21 leased federal airports are listed at: www.infrastructure.gov.au/infrastructure-transport-vehicles/aviation/airports. Mount Isa and Tennant Creek airports are state regulated due to their small scale.

Under the Act, the Regulations and the terms of their lease agreements with the Australian Government, ALCs are responsible for environmental management at the airport site. ALCs and airport tenants have a range of statutory obligations under the Act and the Regulations to protect the environment and manage environmental issues on airport, including air, soil, water and noise pollution.

Environmental Planning Framework

All leased federal airports (except for Tennant Creek and Mount Isa) are also subject to the planning framework set out in the Act. This framework requires:

- Airports to prepare a Master Plan in accordance with the requirements set out in Division 3 of Part 5 of the Act. Airport Master Plans are required to include an Airport Environment Strategy that, among a range of other environmental considerations, provides details of the airport's plans for pollution management, including managing PFAS contamination.
- Western Sydney International (Nancy-Bird Walton) Airport has an Airport Plan in place to authorise and regulate the first phase of construction works. Provisions in the Airport Plan relevant to the ongoing operations of the airport (including to manage environmental impacts from its operation) will be in place until the first Master Plan is approved for the airport in accordance with Division 4A of Part 5 of the Act.
- Airports must develop a Major Development Plan (MDP) for each proposed major development in accordance with the requirements set out in Divisions 4 and 4A of Part 5 of the Act. The MDP must set out the environmental impacts that can reasonably be expected and the proponent's proposed measures for dealing with those impacts. The Act requires the Minister for Infrastructure, Transport, Regional Development and Local Government (the Minister), to have regard to 'the impact that carrying out the plan would be likely to have on the environment' in deciding to approve or refuse to approve an MDP. To inform this decision, advice on the draft MDP is sought from the Minister for the Environment under the *Environment Protection and Biodiversity Conservation Act 1999*.
    - MDPs that involve excavation or movement of soil at an airport often require scrutiny of how PFAS contaminated soils are being managed and how water is being managed in the development to minimise risks to the environment from contaminated soils.

Airport Environment Officers

Regulatory oversight of the leased federal airports is provided by a network of Airport Environment Officers (AEOs), employed by the department. AEOs are statutory appointees who work with ALCs, other airport tenants and relevant Commonwealth and state and territory agencies with responsibilities for environmental regulation or management to support best-practice environmental management and help ensure investigations and management plans are consistent with national standards and guidelines, including the *PFAS National Environmental Management Plan 2.0* (PFAS NEMP). AEOs also work closely with ALCs, state regulators and key airport tenants, including at quarterly PFAS Roundtables, to ensure any PFAS pollution is identified and managed appropriately.

AEOs operate within a compliance framework that clearly describes roles, responsibilities and decision-making processes. The compliance framework promotes evidence and risk-based approaches to environmental regulation with a focus on the early identification, assessment and management of risks. They also oversee development activities on airports to ensure that such activities manage and monitor any identified contamination consistent with national standards, the Act and the Regulations.

AEOs can take regulatory action if a person causes pollution at an airport and is not taking appropriate steps to respond to the pollution, for example by directing them to stop polluting, or by ordering them to undertake specific remedial work, or both. AEOs issued 2 Environmental Remedial Orders; one at Canberra Airport on 28 April 2024 and one at Launceston Airport on 30 March 2023, in relation to PFAS pollution caused by Airservices.

1.1 Oversight of Airservices Australia

Airservices Australia (Airservices) is a corporate Commonwealth entity established by the *Air Services Act 1995*, wholly owned by the Australian Government and accountable to the Minister. Airservices is governed by its Board, under direction from the Minister.

While Airservices is an independent entity, the department has a role in supporting the Minister in the oversight of Airservices and keeping abreast with relevant matters. To the extent Airservices occupies sites on leased federal airports, the AEOs have environmental regulatory oversight of Airservices. The department engages closely with Airservices on PFAS matters, including meeting regularly to discuss the progress of investigation and remediation, and working together to avoid duplication with the government's PFAS Airports Investigation Program.

2. PFAS at civilian airports

Aqueous film forming foam (AFFF), historically used in fire-fighting and training practices, including on Defence bases and civilian airports, are now known to have contained PFAS including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). Investigation of PFAS contamination on Defence bases commenced in 2016 and has been completed for 28 Defences sites which have moved into a PFAS Management Area Planning phase.

PFAS were widely used in firefighting foams at up to 37 civilian airports across Australia from the 1950s through to 2010, when it ceased to be used at civilian airports. These foams were used in firefighting activities until 1988 by the Commonwealth, and then by the Civil Aviation Authority, and finally Airservices from its establishment in 1995 until 2010[2].

While some investigation and management actions have been undertaken by various parties at most airports (e.g. by airport lessee companies and Airservices), the scale of PFAS contamination across civilian airports is not yet fully known, nor is the potential scale of any offsite contamination. Airports are complex industrial sites with multiple tenants. The presence of former landfill sites, the migration of PFAS from surrounding urban or industrial areas and any new development which disturbs contaminated soil can contribute to on-airport (and off-airport) contamination.

The potentially impacted airports are located in every state and territory, and vary in size, ownership, environmental regulator and the scale and extent of potential PFAS contamination.

Of the 37 civilian airports:

- 20 are 'leased federal airports'[3], operated by private companies (ALCs) under long-term Crown lease agreements administered by the department[4].
- One (Avalon, VIC) is owned and leased out by Defence; and
- 16 are 'non-federally leased', either owned privately or by local governments and regulated by the relevant state or territory.

A list of these airports is at **Attachment A**.

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[2] Local and state firefighting services have also operated at some sites.

[3] 21 leased federal airports are defined under the *Airports Act 1996*. All are included in the Program, except Tennant Creek as there is no evidence PFAS-containing firefighting foams were used at this airport. Two of these airports (Darwin and Townsville) are joint-user airports, with both civilian and defence activities on the airport site.

[4] The department regulates the environmental management of 19 of these airports under the *Airports Act 1996*, with Mount Isa and Tennant Creek Airports being state/territory-regulated due to their small scale.

2.1 Delivery of PFAS Airports Investigation Program

The department is delivering a national investigation program – the PFAS Airports Investigation Program (the Program) – at up to 37 civilian airports where the Commonwealth historically provided firefighting services which used PFAS-containing foams. The Program aims to identify the nature and extent of PFAS across these civilian airports and develop PFAS Management Plans to address any identified risks.

- Note, the Program is separate to the Defence PFAS Investigation and Management Program and Airservices' National PFAS Management Program, although some sites are in scope for multiple investigation programs.

The Program will ensure thorough, targeted and independently audited site assessment is undertaken across entire airport sites, as well as migration pathways from airports, which may potentially impact neighbouring residential land. Investigations will generally include a Preliminary Site Investigation, Detailed Site Investigation, and PFAS Management Plan, to monitor and manage contamination. A Human Health and/or Ecological Risk Assessment will be undertaken if PFAS is detected above guideline levels and exposure pathways have been confirmed.

The Program is being undertaken in accordance with national requirements and best practice, including the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as updated in 2013), the PFAS NEMP, and the PFAS IGA.

Airport participation in the Program is voluntary, with investigations undertaken in tranches to manage market capacity constraints driven by a limited pool of qualified contaminated land specialists and auditors:

- Investigations are underway at 8 airports (Adelaide, Bankstown, Brisbane, Canberra, Hobart, Launceston, Melbourne and Parafield) under Tranche 1 of the Program. The former Eagle Farm airport site is being considered in the Brisbane Airport investigations. These airports participated in the pilot program in 2022 and transitioned to form Tranche 1 of the main Program on 1 July 2023. Investigations are scheduled to be completed from mid-2026.
- Investigations commenced at a further 7 airports (Archerfield, Camden, Gold Coast, Jandakot, Moorabbin, Mount Isa and Townsville) in March 2024. These investigations are anticipated to take between 2 and 3 years to complete.
- Five airports (Alice Springs, Darwin, Essendon Fields, Perth and Sydney) have declined to participate in the Program at this time but remain eligible for future Program tranches.
- The department has commenced planning activities for future Program tranches that will consider the 16 non-federally leased airports, Avalon Airport and the 5 leased federal airports who have to date declined to participate.

Note, while in the Program's scope, Norfolk Island Airport has been separately investigated by the Territories Division of the department, and a management plan is in place. Refer **Section 2.2**.

The Program is expected to be completed by 30 June 2027, with the first investigations completed from mid-2026. Program PFAS Management Plans and final reports will be made publicly available as each investigation is finalised.

The department understands that PFAS contamination (both known or suspected) creates significant concerns for surrounding communities. The combination of complex Commonwealth and state regulatory and health policy frameworks, potential for multiple polluters and the complexity of PFAS management, requires significant coordination and consultation. During Program investigations, the department and the contaminated land specialists engaged to lead investigations actively engage with surrounding communities and other key stakeholders – including airport operators and tenants, and relevant state and territory environmental agencies – to ensure whole-of-site PFAS impacts are properly characterised and nationally consistent PFAS Management Plans can be put in place.

The department is also working collaboratively with other Australian Government agencies – including Defence, Airservices, the Department of Climate Change, Energy, the Environment and Water (DCCEEW), and

the Department of Health and Aged Care (DHAC) – to ensure consistency, avoid duplication, inform the administration of the Program and reduce impacts to affected stakeholders.

Management and remediation activities are beyond the scope for the Program, with the exception of a $7 million contingency fund for interim measures to address immediate or extremely high risks where risks to human health impacts on drinking water are identified. Contingency funds have not yet been leveraged.

2.2 Norfolk Island PFAS investigation and management

There are no centralised drinking water supplies on Norfolk Island. Residents rely on rainwater tanks and, to supplement this supply, bore water.

- Norfolk Island Regional Council does make some water sources available to the community for agricultural use only. These include dams and standpipes connected to community bores.
- A desalination plant is in operation on Norfolk Island for the purpose of supplementing water supplies on the island when required.

PFAS were used in firefighting foam at the Norfolk Island Airport from the early 1980s until 2015.

In December 2019 elevated levels of PFAS were detected in the Mission Creek water catchment adjacent to the Norfolk Island Airport. In January 2020, the department engaged a consultant to determine the nature and extent of PFAS impact and to assess the potential exposure pathways for people and the environment.

The investigation field work was carried out in 2020-21 and the detailed environmental investigation was completed in late 2021. The investigation reports were publicly released in February 2022, and the subsequent yearly monitoring reports in 2023 and 2024 have also been publicly released.

- While PFAS concentrations in surface water, adjacent to Norfolk Island Airport, remained consistent in March 2021 and May 2022, recent reporting identified a general decrease between May 2023 and June 2024.
- PFAS in water sources that could potentially be used for drinking were at most sites not detectable, though 4 sites did register PFAS readings. Results were compared to the Australian Drinking Water Guidelines which state that the safe levels of the sum of PFOS & PFHxS and PFOA is 0.07 micrograms/litre and 0.56 micrograms/litre respectively.
    - The airport bore tank recorded 21.2 micrograms/L. This tank has historically been used as a holding tank before water was pumped to the fire station and terminal. This bore is now filtered by point-of-entry treatment (POET) systems prior to use in public toilets, wastewater treatment plant, and sewer lines. ‘Do not drink’ signs are installed at public bathroom taps across the island.
    - Fire hydrants on airport grounds used to fill the fire station trucks recorded 0.07 micrograms/L, and while not used for drinking, it is within current drinking water guidelines.
    - Public bathroom taps supplied by the airport bore recorded 1.04 micrograms/L post POET filtration. ‘Do not drink’ signs are installed at public bathroom taps across the island.
    - Airport terminal bathrooms recorded 0.02 micrograms/L, within current drinking water guidelines. The airport bore water no longer supplies these bathrooms, they are connected to new airport rainwater tanks and/or airport reservoir. Do not drink signs are in place.
- An unexpected reading was identified in the firehouse drinking water during the 2024 monitoring activity. An investigation determined that this was the result of two rainwater tanks being incorrectly connected, and was rectified as soon as it was identified. Management of this particular matter is the responsibility of the Norfolk Island Regional Council.
- In other point-of-use water results for non-drinking water, PFAS are being monitored in some water sources associated with irrigation, stock watering and stock drinking. Current management actions are addressing this exposure, typically through the use of alternate sources.

To 14 October 2024, the department has spent $1.946 million on PFAS investigation, remediation and monitoring activities on Norfolk Island.

3. Non-airport sites of interest

3.1 Jervis Bay Territory

In the Jervis Bay Territory (JBT), there is a presence of PFAS, likely from the historical use of firefighting equipment at Defence's Jervis Bay Range Facility and HMAS Creswell.

- Defence, as lead Commonwealth Agency, is working with local authorities to monitor, manage and remediate PFAS contamination in the area.

Since September 2020, the department has conducted monthly analytical testing of JBT drinking water from multiple sites, including spectrum testing for metals, acids, anions, *E. coli* and PFAS.

- An independent laboratory, accredited by the National Association of Testing Authorities, is engaged to do this work.

Testing results of the JBT's drinking water continue to show PFAS levels are many times lower than the levels prescribed by the Australian Drinking Water Guidelines (i.e. less than 0.07 micrograms/litre PFOS & PFHxS and 0.56 micrograms/litre PFOA).

- The levels in the JBT remain significantly lower at 0.0005 micrograms/litre for the sum of PFOS & PFHxS, and <0.0005 micrograms/litre for PFOA (results from testing in September 2024).

The results of the water testing are released to the JBT community monthly, via a newsletter to provide assurance in the safety of drinking water quality. Results are also published on the department's website.

In the 2021-22 Mid-Year Economic and Fiscal Outlook, the Australian Government committed $15.8 million for a 11.2km pipeline to connect JBT to the Shoalhaven City Council water supply and explore options to improve wastewater processing.

- The pipeline project has experienced some delays in finalising the design, however the project is now moving to the construction phase and is on track for delivery in late 2025.
- The department is simultaneously exploring long-term solutions for managing wastewater generated in the JBT as the current wastewater treatment plant is nearing its end of useful life.

3.2 Moorebank Intermodal Terminal Precinct

PFAS impacted soils have been found on site in the delivery of the Moorebank Intermodal Terminal Precinct (MITP) at Moorebank in Western Sydney.

The delivery of the MITP is being led by National Intermodal (formerly known as Moorebank Intermodal Company[5]), established in 2012. The Australian Government is supporting the development of MITP which is set to be the largest intermodal logistics hub in Australia. MITP is being developed on an area of over 241 hectares of developable land, comprising of land owned by the Commonwealth and adjacent land owned by LOGOS Property Group Consortium[6].

Development consent provided by the NSW Department of Planning, Industry and Environment has permitted the reuse of PFAS contaminated soil found at the MITP site under correct management procedures and controls. According to the latest update, all PFAS contaminated soils have been properly remediated and reused at the dust bowl site at the MITP.

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[5] In February 2022, Moorebank Intermodal Company changed its name to National Intermodal Corporation.
[6] In July 2024, ESR Group Limited finalized its acquisition of LOGOS.

4. Government Engagement on PFAS matters

The department recognises that the Intergovernmental Agreement on a PFAS IGA provides a high-level framework for stakeholder engagement and responsibilities, and promotes collaboration between entities. The department continues to deliver its responsibilities in line with the PFAS IGA.

The department notes the PFAS Contamination Interdepartmental Committee (PFAS IDC) is a valuable forum to ensure relevant Commonwealth agencies are sharing information, coordinating activities and working together to develop, and continually review, policies and practices for managing PFAS contamination. The PFAS IDC generally meets twice a year and member agencies include the department, as well as the Department of Prime Minister and Cabinet, Defence, DHAC, DCCEEW, Department of Finance, and Department of Agriculture, Fisheries and Forestry.

Attachments

Attachment A: List of Civilian Airports

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Summary of Airports in scope for the Program

	Airport	Leased Federal Airport	Program Status
1	Adelaide SA	✓	✓ Tranche 1, DSI commenced
2	Alice Springs NT	✓	× Declined to participate in Tranche 2; may be invited for future tranches
3	Archerfield QLD	✓	✓ Tranche 2, PSI underway
4	Avalon VIC	Defence owned	- Future tranches under consideration
5	Bankstown NSW	✓	✓ Tranche 1, DSI commenced
6	Brisbane QLD	✓	✓ Tranche 1, DSI commenced
7	Broome WA	×	- Future tranches under consideration
8	Bundaberg QLD	×	- Future tranches under consideration
9	Cairns QLD	×	- Future tranches under consideration
10	Camden NSW	✓	✓ Tranche 2, investigation works in early stages
11	Canberra ACT	✓	✓ Tranche 1, DSI commenced
12	Coolangatta/Gold Coast QLD	✓	✓ Tranche 2, PSI underway
13	Darwin NT *	✓	× Declined to participate in Tranche 2; may be invited for future tranches
14	Devonport TAS	×	- Future tranches under consideration
15	Eagle Farm QLD	×	✓ Being considered as part of the Brisbane airport investigation (Tranche 1)
16	Essendon Fields VIC	✓	× Declined to participate in Tranche 2; may be invited for future tranches
17	Hamilton Island QLD	×	- Future tranches under consideration
18	Hobart TAS	✓	✓ Tranche 1, additional fieldworks underway to close data gaps identified through the DSI completed in Pilot
19	Jandakot WA	✓	✓ Tranche 2, PSI underway
20	Karratha WA	×	- Future tranches under consideration
21	Launceston TAS	✓	✓ Tranche 1, additional fieldworks underway to close data gaps identified through the DSI completed in Pilot
22	Mackay QLD	×	- Future tranches under consideration

	Airport	Leased Federal Airport	Program Status
23	Maroochydore Sunshine Coast NSW	×	- Future tranches under consideration
24	Melbourne VIC	✓	✓ Tranche 1, additional fieldworks underway to close data gaps identified through the DSI completed in Pilot
25	Moorabbin VIC	✓	✓ Tranche 2, TSI being finalised
26	Mount Isa QLD	✓	✓ Tranche 2, PSI underway
27	Norfolk Island NOR	×	- Investigated by the Territories Division. Management Plan in place
28	Parafield SA	✓	✓ Tranche 1, DSI commenced
29	Perth WA	✓	× Declined to participate in Tranche 2; may be invited for future tranches
30	Port Headland WA	×	- Future tranches under consideration
31	Proserpine QLD	×	- Future tranches under consideration
32	Rockhampton QLD	×	- Future tranches under consideration
33	Sydney NSW	✓	× Declined to participate in Tranche 2; may be invited for future tranches
34	Tamworth NSW	×	- Future tranches under consideration
35	Townsville QLD *	✓	✓ Tranche 2, PSI underway
36	(Wynyard) Burnie TAS	×	- Future tranches under consideration
37	Yulara (Ayers Rock) NT	×	- Future tranches under consideration

PSI = Preliminary Site Investigation; DSI = Detailed Site Investigation; TSI = Targeted Site Investigation;

SAQP = Sampling and Analysis Quality Plan

**Joint-user airport*