

**Response provided to journalist  
17 January 2019**

**Response:**

(Addressing an enquiry about the Murray Cod Hatcheries)

In November 2018, Defence completed an environmental investigation into the nature and extent of PFAS at, and around, RAAF Base Wagga. The final stage of the investigation was a Human Health and Ecological Risk Assessment (HHERA) which identified if there is a potential for people, plants or animals to be exposed to PFAS within the Study Area. The HHERA assessed potential PFAS exposure pathways against a range of scenarios to determine the level of exposure risk.

PFAS are emerging contaminants and, while there have been sufficient studies for the Department of Health to publish guidance on tolerable daily intakes, drinking water and recreational water, it is important to note that this guidance is precautionary. According to The Environmental Health Standing Committee (enHealth), there is currently no consistent evidence that exposure to PFOS and PFOA causes adverse human health effects. As these chemicals persist in humans and the environment, enHealth recommends that human exposure to these chemicals is minimised as a precaution.

Defence engages independent environmental consultants to undertake the PFAS environmental investigations in accordance with guidance published by Commonwealth and state agencies. The investigation for RAAF Base Wagga used screening criteria from the PFAS National Environmental Management Plan (NEMP) and was reviewed by a Site Auditor accredited by the NSW Environment Protection Authority (EPA). Defence collaborates with state agencies during the investigation process and investigation reports are reviewed by these agencies.

The key findings from the HHERA regarding the ecology were:

- No unacceptable exposure risk to land animals (including livestock) coming in to contact with soil in PFAS affected areas was identified.
- Potential risk of exposure from bioaccumulation in mammals that eat insects which live in PFAS impacted soil and sediment was identified in some areas including Gumly Gumly Wetland (including Murray Cod Hatcheries) and Marshalls Creek.
- Potential risk of exposure to aquatic animals from direct contact with impacted surface water was identified in some waterways including Gumly Gumly Wetland and Marshalls Creek.
- Potential risk of exposure was identified for birds and mammals that consume aquatic animals from local waterways in the Study Area.

Given the limitations in information on the effects of PFAS on ecology, the HHERA notes that the ecological risk assessment is screening only and does not seek to assess potential effects of PFAS on specific species.

The HHERA included sampling of surface water, groundwater, soil, sediment, fish and yabbies at the Murray Cod Hatcheries. The results of this sampling are included in the reports released on the Defence website at: [www.defence.gov.au/environment/pfas/wagga/publications.asp](http://www.defence.gov.au/environment/pfas/wagga/publications.asp)

The PFAS concentrations detected in water at the Murray Cod Hatcheries are the highest detected in off-base locations as part of the Defence investigation. The maximum surface water concentration at the Murray Cod Hatcheries was 7 ug/L and the maximum groundwater concentration was 3.36 ug/L. Both of these values exceed the NEMP guidance values for drinking water (0.07ug/L) and

recreational water use (0.7ug/L), however it is important to note that Defence has been advised that the surface water in the ponds and the groundwater bores at Hatcheries are not currently used as a source of drinking water.

The HHERA did not identify unacceptable exposure risks from incidental contact with water at the Murray Cod Hatcheries. Incidental contact may occur when washing hands or wading in the ponds for maintenance activities.

The HHERA refers to published studies of PFAS depuration in various fish and crustacean species and notes that when placed in clean water, the time taken to remove PFAS from their systems ranges from hours to weeks depending upon the species. The HHERA indicates that there should not be any exposure risks in relation to consumption of fish and crustaceans, assuming these were placed in a PFAS free environment for at least two weeks. Depuration studies on the species produced at the Murray Cod Hatcheries would be needed to confirm actual depuration rates.

A PFAS Management Area Plan (PMAP) is now being developed based on the investigation findings. The PMAP will outline activities that Defence may undertake to manage, monitor and reduce the risks of PFAS exposure at, and surrounding, RAAF Base Wagga.

An Ongoing Monitoring Plan will also be developed as part of the PMAP which will set out environmental monitoring locations, testing requirements and testing frequency to monitor movement and changes in PFAS contamination in the future.

Defence will hold another Community Information Session, expected in second quarter of 2019, to present and discuss the PMAP with the local community.

Government responses to PFAS contamination must be responsible, evidence-based, risk-appropriate and sustainable. The Australian Government has considered all the available information relating to PFAS contamination, including individual site investigation results, community views, expert advice, and scientific data, and is responding to PFAS in a way that is consistent with the available evidence.

The Commonwealth is always open to receiving claims directly from individuals and businesses who have suffered a loss or injury and consider the Commonwealth is liable. Details about how to make a claim can be found on the Department of Defence's PFAS Investigation and Management Program website <http://www.defence.gov.au/Environment/PFAS/FinancialClaims.asp>.

Any individuals or businesses wishing to submit a claim are requested to provide relevant documentation to support their claim as outlined on the website.

Further information on Defence's Investigation and Management Program is also available at <http://www.defence.gov.au/Environment/PFAS/>.