

Dear

Mr David Gaddes – 2 Lavis Lane, Williamtown

The Environment Protection Authority (EPA) has been approached by Mr David Gaddes to provide information to the Bank regarding the Williamtown Contamination issue, and specifically its potential impacts on land owned by Mr Gaddes at 2 Lavis Lane Williamtown.

PFAS (per- and poly-fluorinated alkyl substances) are a group of manufactured chemicals that have been used as fire retardants since the 1950s. PFAS chemicals have also been used 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. PFAS chemicals were present in foam used at the Williamtown RAAF Base in fire-fighting training and operations prior to a change in Defence policy issued in 2008.

On 8 August 2016, the Commonwealth Department of Defence (Defence) released its Human Health Risk Assessment (HHRA) examining possible pathways for human exposure to PFAS arising from contamination at the Williamtown RAAF Base. Defence has also released an Environmental Site Assessment which includes modelling to predict the movement of the PFAS chemicals.

Both reports reinforce that the drinking or consumption of groundwater is a major exposure pathway for PFAS contamination and highlights that incidental swallowing of groundwater or surface water, particularly by children, should be avoided when showering, bathing and swimming.

The NSW Government is recommending that residents from the Williamtown community living inside the Williamtown Investigation Area (copy attached) follow precautionary advice to minimise their exposure to PFAS chemicals originating from the Williamtown RAAF Base. The precautionary advice is:

- Do not use groundwater, bore water or surface water for drinking or cooking.
- Do not eat eggs or drink milk produced in the advisory area.
- Avoid swallowing groundwater or surface water when bathing, showering, swimming and paddling.
- Moderate consumption of fruit and vegetables, meat and poultry produced in the advisory area while further work and analysis is undertaken.
- Locally caught seafood is safe to eat (but it is recommended that Dusky Flathead be caught and released by recreational fishes). People who source and eat large amounts from a single

location, such as fishers and local residents, may wish to limit the number of serving of individual species.

The EPA is aware of Mr Gaddes premises, and is aware that he has obtained development consent from Port Stephens Council for the commercial development of his premises. The EPA notes that the proposed development once constructed will not interact with contaminated surface or groundwater and as a result, will not give rise to human health exposure pathways to PFAS chemicals.

None of the precautionary measures listed above will be relevant to Mr Gaddes development once constructed, particularly as the premises will be supplied with reticulated town water, which is safe to drink.

The EPA is aware that Defence has carried out testing of both surface water and soil at Mr Gaddes property. All results of testing of these samples were at or below laboratory limits of detection with the exception of one soil sample which returned a result of 0.0005 mg/kg. This result is 12,000 times lower than the adopted screening criteria of 6 mg/kg for direct contact with residential soil.

On this basis, there is a very low potential for any interaction with PFAS contamination during the construction of Mr Gaddes' development. In any case, risks associated with PFAS contamination can be readily managed through the following simple measures:

- All surface water and groundwater encountered during works should be considered PFAS-impacted unless other information is available.
- Development and implementation of a water management plan that outline controls to minimise worker, public, and livestock exposure to extracted water and describe the design and operation of on-site disposal of extracted water by irrigation/seepage.
- Any groundwater that accumulates in footings or other excavations and needs to be pumped out should be pumped to a location on the property where it can seep into the ground and not run off. This must be as close to the point of origin and as far away from drainage points and other property boundaries as practicable. Extracted groundwater must not be permitted to run off the property.

As discussed, the EPA is of the opinion that the contamination of groundwater and surface water within the Williamstown Investigation area should not impact unreasonably on Mr Gaddes' development.

Please contact me on Ph. 4908 6815 if you require further information.

Yours sincerely



1 December 2016

ADAM GILLIGAN
Regional Director North

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Encl. Map of Williamstown Investigation Area

