Ambient concentrations of PFAS in the Latrobe Valley

EPA VICTORIA | Environment Protection Authority Victoria

VICTORIA State Government

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Fact sheet

Summary

EPA has been conducting further investigations to better understand the extent of per-and polyfluorinated alkyl substances (PFAS) contamination in Victoria. EPA undertook sampling soil, sediment and water in Victoria's five largest population centres; Melbourne, Geelong, Ballarat, Bendigo and the Latrobe Valley. This factsheet discusses the results from the Latrobe Valley only.

Some PFAS associated with specific sources have previously been reported at elevated concentrations in specific locations in the region. In the Latrobe Valley, PFAS concentrations are generally lower than elsewhere in Victoria.

PFAS in riverine water, sediments and soils – associations with land use

Ambient riverine samples (water, sediment and soil) were collected in April 2018. Five different land use types were sampled as shown in Figure 1: background/forested, low intensity agriculture (for example grazing), high intensity agriculture (cropping, horticulture), urban residential and industrial/commercial.

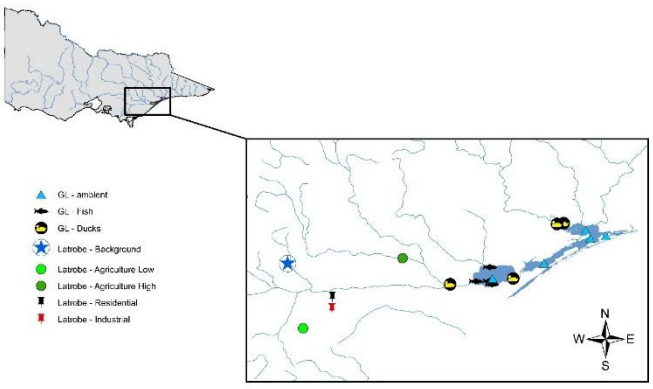

Figure 1 – The five different land use types samples in the Latrobe Valley.

Compared with the other regional centres studied, PFAS in the Latrobe Valley were detected less often, and at much lower concentrations.

The PFAS results are summarised in Table 1. PFAS were not found above the limits of reporting in soil samples in any Latrobe Valley sites, and only in one sediment sample. PFAS were not detected in any soil, sediment or water samples above the limit of reporting at Tyers River, considered a background location with no known PFAS sources.

All detections of perfluorooctane sulfonate (PFOS) in water were above the draft Australian and New Zealand Guidelines for Fresh and Marine Water Quality 99 per cent protection level guideline values but were all well below the current 95 per cent protection level. At the levels found, most species would be protected from PFOS but some very sensitive species, should they be present, may be at risk.

As observed in other locations in Victoria, PFAS are most common in residential and industrial locations.

The results of this assessment suggest that away from known PFAS contamination locations, such as the Heart Morass Wetland, PFAS concentrations are comparatively low in the Latrobe Valley.

Further information

Contact EPA on **1300 372 842** (1300 EPA VIC) or **epa.vic.gov.au**

EPA's consumption advice on waterfowl (publication 1732): epa.vic.gov.au/our-work/publications/publication/2019/march/1732

EPA's consumption advice on fish (publication 1735): epa.vic.gov.au/our-work/publications/publication/2019/march/1735

Information about the health effects of PFAS and health-based guideline values for PFAS: health.gov.au/internet/main/publishing.nsf/Content/ohp-pfas.htm

Information about EPA's interagency work can be found in EPA's *Interim position statement on PFAS*: epa.vic.gov.au/our-work/publications/publication/2018/august/1669-2

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What is PFAS?

PFAS are a group of chemicals that include perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS).

PFAS have heat, water and stain repelling properties. Because of this, they are used in a range of industrial and consumer products including fire retardants, water proofing, non-stick cookware, food preparation, food packaging, furnishings, and clothing.

PFAS are a concern because they can persist for a long time, both in the environment and in humans.

What are the health effects of PFAS?

FSANZ and the Environmental Health Standing Committee (enHealth) report there is no consistent evidence that PFAS are harmful to human health. However, since these chemicals accumulate and remain in humans and the environment for many years, it is recommended that as a precaution, human exposure to PFAS be minimised wherever possible.

I have been catching and eating fish from affected areas. Should I be concerned?

People who have eaten fish and eels are not considered to be at risk of any adverse health effects.

Until more is known about PFAS, however, EPA recommends that to minimise future exposure to PFAS, do not consume or limit consumption of any fish and eels caught from the affected waterbodies according to the recommendations above.

Further information

Further information regarding Victorian sites currently under investigation can be found on EPA's website: www.epa.vic.gov.au/our-work/current-issues/water-quality/cfa-regional-training-centres and www.epa.vic.gov.au/our-work/current-issues/water-quality/department-of-defence

Table 1: PFAS above limit of reporting in Latrobe Valley riverine sites. Values in bold exceeded the draft PFOS freshwater 99 per cent level of protection default guideline value of 0.00023 µg/L specified in the National Water Quality Guidelines. Note "-" is equivalent to no detection of PFAS.

		Tyers River, Moondarra (background)	Billy Creek, Jeeralang Junction (ag low)	Thompson River, Tinamba (ag high)	Traralgon Creek, Newman Park (residential)	Traralgon Creek, Traralgon South (industrial)
PFOS	Water	-	-	**0.0066**	**0.0074**	**0.0033**
PFOS	Sediment	-	-	-	-	0.0022
PFHxS	Water	-	-	0.0052	0.0058	0.0017
PFOA	Water	-	-	-	0.0031	-