

Water Quality Monitoring – Ourimbah Catchment

Since 2016, the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) has monitored ammonia levels in Upper Ourimbah Creek near Mangrove Mountain. Ammonia is used as an indicator of possible contamination leaching from the landfill. The NSW Environment Protection Authority (EPA) has tested for a range of other possible contaminants too.

The recorded levels of ammonia have generally remained below the relevant ecological trigger values (as set by ANZECC), except in 2018. However, the levels have varied over time. This is probably due to environmental factors such as changes in rainfall and seasonal temperature changes. Other monitoring results suggest multiple runoff sources are influencing the catchment.

Ammonia levels above the guidelines were recorded in August 2018 in all sample areas in the catchment. This was probably due to low rainfall. The total recorded rainfall for the month was 2.2 millimetres. Low rainfall means any ammonia is less diluted by rain. Ammonia levels were elevated across the catchment, which suggests the ammonia was coming from other sources, not just the landfill. Possible sources include agriculture (both small-scale and large-scale), turf farms, and fertiliser runoff from the adjacent golf course.



Ammonia concentration (µg/L) – Upper Ourimbah catchment

Data note:

0 = site not sampled 20 µg/L is the default trigger value for south-east Australian lowland rivers (ANZECC).

In 2025 we (the EPA) also began testing for PFAS chemicals (see below).

It is important to note that some of our regular monitoring events were disrupted by COVID-19 in 2020-21 and extreme weather in 2023.

NSW Health recommends that untreated water from rivers and creeks should not be used for drinking or cooking without appropriate treatment. Untreated water may contain disease-causing micro-organisms, chemical contaminants or algal blooms. For more information about drinking water quality visit Drinking water quality | Central Coast Council.

Full results on Ourimbah Creek sampling are available on the EPA's website.







PFAS detection and ongoing investigations

On 23 January 2025 Central Coast Council notified the EPA about low-level PFAS detections in raw water sampled from Ourimbah Creek and surrounding waterways. The council is now investigating the presence of PFAS in the catchment. The EPA, NSW Health and DCCEEW staff are collaborating and providing support to the council.

What are PFAS?

PFAS (per- and polyfluoroalkyl substances) is a group of manufactured chemicals that includes perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS).

PFAS are very stable chemicals that bioaccumulate, do not easily breakdown and can persist in the environment. Due to their fire-retardant, waterproofing and stain-resistant qualities, these chemicals have been widely used in some types of fire-fighting foams and industrial products worldwide.

PFAS can also be found in low concentrations in many consumer products such as food packaging, non-stick cookware, fabric, furniture, and carpet stain protection applications. Products containing PFAS are being phased out around the globe.



Are PFAS a health risk?

Finding PFAS in the environment does not necessarily mean there is a human health risk. Expert advice released by the Australian Government in February 2024 states that PFAS have not been shown to cause disease in humans and are 'unlikely to cause significant negative health outcomes'.

However, the Australian Government's PFAS Expert Health Panel recommends limiting exposure to PFAS as a precaution until further research into health effects is completed.

Typically, this approach means assessing and minimising human exposure pathways, such as limiting groundwater consumption or the consumption of homegrown produce where threshold levels of PFAS are present.

How are people exposed to PFAS?

Due to their widespread use, almost everyone is exposed to low levels of PFAS from food, water, and various consumer products. Specific contamination can lead to higher exposures through contaminated food, especially seafood, or affected drinking water.

Are these chemicals still in use?

The Australian Government has banned the manufacture and importation of some PFAS substances from 1 July 2025, including everyday products that contain PFAS.

Has PFAS been found in the Central Coast community's drinking water supply?

No. Central Coast Council detected low levels of PFAS during routine catchment monitoring in raw, untreated water in Ourimbah Creek. It has not detected PFAS in drinking water supplies from any dams currently providing drinking water.

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You can find Central Coast Council's water sampling results here: <u>Drinking water quality | Central</u> <u>Coast Council</u>.

Is there a risk to the community?

The presence of PFAS in the environment does not necessarily mean there is a health risk.

While there have been detections of PFAS in the Ourimbah Creek catchment, they have been found in a raw water source, not in the Central Coast's drinking water supply. Additionally, the locations where PFAS have been found are largely inaccessible to the public so any potential risk to human health is considered very low.

NSW Health also advises that water from rivers and creeks should not be used for drinking or cooking without appropriate treatment. Untreated water may contain disease causing micro-organisms, chemical contaminants or algal blooms. For more information visit <u>Drinking surface water</u> <u>– Water quality</u> (nsw.gov.au).



Has the source of the PFAS been identified?

Central Coast Council is responsible for the management of the water catchment and drinking water supply for the Central Coast and the EPA has encouraged them to investigate all potential PFAS contamination sources in the catchment. We are meeting regularly with the Council to stay up to date on their investigations.

The EPA has also undertaken sampling in the waterways very close to the Mangrove Mountain landfill to determine if they are a potential source of PFAS contamination. We are progressing a range of measures to improve the environmental management of this facility.

You can read about the EPA's regulation of the Mangrove Mountain landfill on our website.

Has the EPA found PFAS in its testing of waterways near the Mangrove Mountain landfill?

The EPA and DCCEEW conducted sampling in January and February this year and results did show the presence of PFAS at four locations in Stringy Bark Creek near the landfill. Results were below the current NHMRC Recreational Water Quality Guidelines but above the Ecological Guidelines.

These waterways are not easily accessible to the public and are not known recreational swimming or fishing spots, so these results suggest a low risk to the community of PFAS exposure in these locations.

Results for our latest sampling can be found on the EPA website.

Are people using groundwater (bore water) at risk?

Central Coast Council is currently working with the EPA, DCCEEW and NSW Health to identify groundwater users in the area as part of their investigation and risk assessment. To date we have no evidence that groundwater users in the area may be at risk of PFAS exposure but are progressing additional investigations at Mangrove Mountain landfill to understand what, if any, PFAS contamination may be occurring on or off site.

Have there been PFAS detections in other Central Coast waterways?

The EPA is leading an investigation program to assess the legacy of PFAS use across NSW, focusing on sites where it is likely large quantities of PFAS may have been used in the past.

The former Munmorah Power Station was identified as being significantly contaminated and PFAS was detected in waters adjacent to the site. In response, seafood caught in the Tuggerah Lakes system was tested to determine if precautionary dietary advice was required. Results confirmed that the community can continue to eat seafood caught in the Tuggerah Lakes as part of a balanced diet.

For more information:

PFAS and drinking water

The NSW Government PFAS Investigation Program | EPA

PFAS Investigation Program Fact Sheet

NSW Health PFAS