

A new runway and associated infrastructure are being built at the Sunshine Coast Airport, in Marcoola. Construction of the new runway started in March 2019 and is scheduled for completion in late 2020, although use of the new runway will commence from the end of May 2020.

A new runway and better facilities will encourage greater opportunities for travel, work, tourism and exporting businesses in our region.

Is Council planning to pump ponded water from the Airport Expansion Project site to the ocean?

No. The water that had ponded onsite as a result of heavy rainfall and bunding of the site in 2019 has now all either evaporated or been treated for re-use onsite or safe discharge. As there is an onsite water treatment plant in place and the bunding of the project site has been removed, there is no need to consider an ocean release solution.

What are PFAS?

The abbreviation PFAS stands for per and poly-fluoroalkyl substances. These are manufactured chemicals that have been used for more than 50 years.

PFAS are man-made compounds and have been widely used worldwide because they are resistant to heat, water and oil. They are in hundreds of products, such as non-stick cookware, food packaging and clothing treated with water repellent coatings.

They have also been used in industrial applications, including mist suppressants in the metal plating industry, hydraulic fluid in the aviation industry, and surfactants in the photography industry.

Since 1970, firefighting foams containing PFAS were used extensively in Australia and elsewhere, due to their effectiveness in fighting liquid fuel fires.

The use of these foams at the Sunshine Coast

Project News

Alternative Release Methods for Ponded Site Water Report

Airport was limited to two very minor light aircraft incidents, and no training was undertaken on the site and nor was the Sunshine Coast Airport used for defence purposes. The estimated amount of PFAS that was proposed to have been released would not have exceeded half a gram in 125 mega litres of water – which is equivalent to about one-tenth of a teaspoon in a total of 50 Olympic swimming pools. It is almost 200 times less than the allowable amount.

PFAS do not occur in nature, and some take a long time to break down in the environment and can accumulate over time. As a result, there are constraints on the amount of certain PFAS chemicals that can be released safely into the environment.

Special Meeting (Region Making Projects)

Why did Council consider in confidential session, a report proposing an ocean release solution on 22 August 2019?

The Alternative Release Methods for Ponded Site Water was proposed as a confidential report on the basis that it contained estimated costings for the Ocean Release program infrastructure and equipment that had not (at that time) been negotiated with the contractor.

The disclosure of the costings at that time would have been prejudicial to Council's ability to negotiate the best possible price with the contractor for the installation of the ocean release system.

As the ocean release solution is not proceeding, the confidentiality considerations are no longer relevant. The report was released on 28 January 2020.

Was the information provided at the Special Meeting shared with the community?

The vast majority of the information contained in the *Alternative Release Methods for Ponded Site Water Report* considered at the Council meeting on 22 August 2019 is also provided in the *Management of Ponded Site Water Report (October 2019)*, available on Council's website.

What were the PFAS concentrations, detected in the ponded water that had accumulated on the project site last year?

Sampling results during May 2019 reported low level concentrations of PFOS and PFHxS in water ponded at the site. Low levels of suspended solids and metals were also reported.

Of the 150 samples with detectable PFOS and PFHxS, concentrations ranged from 0.002 to an isolated maximum of 0.224 µg/L (micrograms per litre). All but 4 results were below 0.05 µg/L concentration. One microgram per litre is equivalent to one part per billion.

The ponded water bodies that were identified as having concentrations above 0.003 µg/L were isolated and pumped into storage tanks for later treatment.

Did the environmental regulator support releasing the water into the Maroochy River?

Yes. Based on environmental investigations and liaison with DES, in May 2019, it was agreed that water could be released into the Maroochy River, providing PFAS concentrations did not exceed existing background levels in the water.

Prior to this decision, both DES and Council undertook water, sediment and biota sampling, to determine if there were detectable levels of PFAS already present in the receiving environment. This testing did not identify PFAS at levels that posed a threat to human health.

A DES spokesperson outlined the department's support at a public meeting held in Maroochydore on 10 September 2019.

Based on sampling results, and having due regard for the amount of PFAS that already existed in the Maroochy River, DES nominated acceptable PFAS concentrations in the ponded water that could be released into the Maroola Drain, at:

- 0.003 µg/L (micrograms per litre) for the sum of PFOS and PFHxS
- 0.007 µg/L for the sum of all PFAS.

On 28 May 2019, the Contractor began releasing water from the site, into Maroola Drain.

What biota was sampled, and what were the results?

Prior to any release of water from the site, consultants sampled fish, prawns, crabs and aquatic plants and tested the samples obtained for both human health risk associated with edible portions and environmental risk associated with whole samples of smaller biota.

The results indicated that the level of PFAS that had bio-accumulated in the edible portions was well below the NEMP guidelines for human health risk.

A number of samples of whole biota exhibited minor exceedances of the screening limit for environmental risk for mammalian consumption, and some also exceeded the screening limit for environmental risk for avian consumption.

Further sampling and testing was undertaken during the controlled release of ponded surface water to the Maroola Drain.

Did the environmental regulator support the proposed ocean release pipeline?

Yes. Council liaised with DES about the need to identify an acceptable solution, to remove water from site at a faster rate than had previously been achieved. DES suggested

Council investigate releasing the ponded water directly into the ocean, subject to conditions around the acceptable level of PFAS and Total Suspended Solids in the release waters.

What is the allowable concentration of PFAS in water that can be released into the ocean?

DES advised that the PFAS National Environmental Management Plan (NEMP) permits the release of PFOS and PFHxS into the ocean, at a concentration of up to 0.7 µg/L.

Why are the allowable PFAS concentrations different, between river and ocean environments?

PFAS compounds reportedly have a higher solubility in fresh water and their bio-chemical behaviour means that they can be more readily available in a fresh-water environment than in a fully saline coastal environment.

PFAS investigations at Sunshine Coast Airport

I live near the airport. Will Council test my bore water/ tank water/ soil for PFAS?

Council has undertaken testing both on and off-site. The test results obtained from off-site locations adjacent to residential areas did not return detectable PFAS concentrations above the laboratory recording limit.

Groundwater modelling has also indicated that the movement of PFAS and concentrations are not predicted to increase as a result of the works of the Airport Expansion Project.

Where did the PFAS at Sunshine Coast Airport come from?

Airservices Australia currently provides Aerodrome Rescue and Fire Fighting Services at Sunshine Coast Airport and has done so since 2004.

During that time Aqueous Film Forming Foam

containing PFAS, was used by Airservices in fire-fighting activities. Council understands that this product was deployed on two occasions on the site between 2005 and 2006. This has resulted in low-level, legacy PFAS contamination in groundwater and some soils.

The PFAS impact at Sunshine Coast Airport is understood to be localised and confined to a small portion of the airport site. Other airport sites across Australia such as Sydney Airport and a number of Defence Force Airports such as Williamtown, have significantly greater concentrations of PFAS contamination than those that exist at the Sunshine Coast Airport.

Where has PFAS been identified at above the drinking water guideline levels?

The groundwater containing PFOS + PFHxS, at or above the NEMP drinking water guideline, is localised in two areas, within the airport boundary. The first is beneath the Western General Aviation area to the west of the terminal. The second is beneath the existing apron in front of the terminal.

Is the PFAS migrating?

The PFAS concentrations at or above the drinking water guideline level, have not migrated significantly in the 15 year period, since the Fire Fighting Foam was first known to be used at the Airport.

Groundwater monitoring data, obtained monthly, indicates that the PFAS level does not exceed the NEMP drinking water guideline, beyond the apron to the east or south, or beyond the Western General Aviation area to the west.

Which way does the groundwater under the Airport flow?

Measurements of groundwater elevations and modelling indicates that the groundwater under most of the property, generally flows slowly to the west, with some localised directional flow in the vicinity of drainage

channels. Some groundwater will also flow very slowly to the east from the very eastern edge of the site, but movement in this area is slowed by tidal influences.

Of the 50 groundwater samples collected near the southern and eastern airport boundaries in 2018 and 2019, 14 did not report any detectable concentrations of PFAS. A further 21 results were below 0.007 micrograms per litre, the average result being approximately 0.001 micrograms per litre.

The highest PFAS concentration in the area was 0.028 micrograms per litre, which is well below the NEMP drinking water guideline of 0.07 micrograms per litre.

Groundwater modelling indicates that as a result of the runway construction, groundwater will be drawn back towards the runway development. It is predicted that there will be a drawdown in shallow groundwater levels at the southern end of the new runway, and beneath the existing terminal apron and runway.

Will Council be testing local groundwater bores?

Based on sampling results already obtained from within the airport boundary, sampling of private bores in the local area is not required.

Results indicate that PFAS has not migrated significantly from areas where firefighting foam containing PFAS was known to be used.

Ongoing groundwater monitoring at the airport, and in the surrounding area, is being undertaken, to track any changes over time.

Where can I find more information about PFAS at Sunshine Coast Airport?

Airservices Australia has completed a Preliminary Site Investigation (PSI) into PFAS contamination at Sunshine Coast Airport. The PSI was completed to better understand potential impacts that may be directly related to Airservices historical use of firefighting foam containing PFAS.

[Airservices PSI Report](#), and a summary fact sheet, are available on the Airservices website.

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