



Noticed a rotten-egg odour in your area?

It may be mangroves

There are many wetlands, swamps and rivers in Unitywater's service region of Moreton Bay, Sunshine Coast and Noosa. Many of these wetlands and rivers are home to grey mangroves, scientifically known as *Avicennia marina*.

In Queensland, all mangroves are protected under the State Government's Fisheries Act 1994 and play an important role in stabilising riverbanks and channels. They also provide important habitat and food source for local animals, including various species of waterbirds, fish and bees.

With the change of weather and seasons, mangroves can release a very pungent odour that can commonly be mistaken for sewage odour. It can often be described as a rotten-egg smell and is most common between May and November.

How does mangrove odour happen?

The odour can happen in both wet and dry conditions and is released as part of a complex chemical reaction that takes place during decomposition.

As mangroves drop their seeds, bacteria help to breakdown the organic matter, producing a sulphur reaction. This reaction creates sulphide gas, which is known as the rotten-egg smell.

Some mangrove plants can drop up to one kilogram of organic matter (seeds and leaves etc.) per square metre per year – meaning a huge potential for a lot of sulphide gas to be produced and then released.



Mangrove odour checklist

At Unitywater, we occasionally hear from customers who believe the rotten-egg smell is coming from a nearby sewage treatment plant. We routinely implement several measures to lower the impact of sewage treatment plant odour on the community. So, before you get in touch, here are a few things that can help you detect whether it is mangrove odour and understand why the intensity of it may fluctuate:

- How close you are to mangroves
- Time of the year (between May and November)
- Wind (higher winds dispersing and diluting the smell faster)
- Seasonal change (rainfall and high tides mean organic matter is spread further)
- The amount of mangrove seeds produced (the more seeds, the more organic matter that needs to breakdown and therefore sulphide gas produced)
- Temperature (cooler conditions disperse less sulphide gas).

Are there any health risks associated with mangrove odour?

Queensland Health assures there are no long-term health impacts associated with exposure to sulphide gas, as they are at very low levels. In the short-term, the smell can cause worry and anxiety and repeated exposure can result in symptoms such as headaches, nausea and fatigue. These are not recognised as direct health effects and medical advice ensures that this is a standard reaction when exposed to strong odours. If your symptoms don't subside when your exposure to the odour is minimised, then we suggest you contact your doctor or Queensland Health on 13 HEALTH (13 432 584).

