What's That Smell? Seasonal Mangrove Odours

Mangroves found in many locations in Ballina Shire give off a rotten egg like odour, usually from July to November. An increase in residential development in coastal regions has led to a rise in the number of enquires regarding these odours which are often confused with sewerage problems.



The importance of mangroves and our coastal environment

Mangrove wetlands and swamps are essential to the environment in helping to maintain a healthy aquatic ecosystem. Mangroves assist in nutrient cycling, and are vital to the lifecycle of plants and animals by providing a habitat for spawning and juvenile fish, prawns and crabs. This is important to both commercial and recreational fishing and aquaculture industries.

Mangrove wetlands are important roosting and feeding areas for migratory birds. They also help stabilise and maintain the coastline and reduce erosion from rough seas, currents, waves and tides. Mangroves are protected under the Fisheries Management Act 1994 and other State and Federal legislation.

Why do odours occur in nearby mangroves?

The odours coming from the mangroves are a result of organic matter breaking down. Bacteria living in the mangrove soil perform the decaying process. Mangrove seeds make up a significant portion of the organic matter. During this process oxygen is used,

but when all the available oxygen is used up, sulphur is used instead. A by-product of sulphur reaction is hydrogen sulphide, which is the gas responsible for the rotten egg smell. Factors that influence odour intensity include:

- time of year (usually July to November), but more particularly in September
- how close you live to a mangrove area
- wind speed and direction
- seasonal factors, such as rainfall and tides
- yield of mangrove seeds
- air temperature, especially at night.

Health issues

Some people report headaches and nausea from inhaling these odours, it is normal for the body to react to strong odours and these symptoms should subside rapidly. Should symptoms persist seek medical advice.

Further Information

Development and Environmental Health Ph: 02 6686 1210 Civil Services, Water and Wastewater Ph: 02 6686 1281 ballina.nsw.gov.au dpi.nsw.gov.au environment.nsw.gov.au