

Foam

What is foam?

Foam is the froth that is commonly seen floating on the surface of the water at the beach or lake. Foam consists of air and water, with a small amount of natural sediment and organic matter. Foam is generally white or brownish (from the sediment and organic matter) in colour, and breaks down relatively quickly. Foaming is a natural process and does not result in any harm to the environment.



Foam in the Eraring Power Station outlet canal



Foam in the attenuation weir

Why does it occur?

Foam usually comes from naturally-occurring processes and is not an indicator of pollution.

The factors affecting the amount of foam created are:

- Agitation or turbulence of the water; and
- The amount of surfactants (substances that reduce water tension) in the water.

The agitation is usually due to wind and wave action. At Eraring Power Station, the agitation is caused by the turbulent flow of water through the outlet canal.

Surfactants enter Lake Macquarie through stormwater runoff. Some surfactants occur naturally from the decomposition of organic matter in soils, while others come from man-made sources such as soaps and detergents. No surfactants are added to the water from the operation of Eraring Power Station.

Foaming is greatest where there are large amounts of organic matter in the



Eraring Power Station Inlet Canal

water and where the turbulence is greatest. These conditions occur following heavy rains when there is a high level of stormwater runoff.

How does Eraring Energy minimise foaming?

As foam is considered a visual pollutant, Eraring Energy adds an antifoam agent to water in the outlet canal at Eraring Power Station to minimise the amount of foam created. This antifoam agent is a biodegradable plant extract approved for use

by the Department of Environment and Conservation.

Independent laboratory testing of foam generated at Eraring Power Station has shown no significant difference in the chemical composition of foam from the outlet canal and foam found in other areas of the Lake.

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