

HYDROGEN SULPHIDE EMISSIONS AT PORT GEOGRAPHE DECEMBER 2009

During winter, sea grass naturally deposits and washes away at many places along the Western Australian coastline. However at the Western Groyne of Port Geographe the sea grass just accumulates in large quantities. This sea grass then decomposes and emits hydrogen sulphide ("rotten-egg") gas. The odour is usually just a nuisance issue however, when the sea grass wrack is disturbed and removed in large amounts as part of an annual bypass operation the odour needs to be closely monitored and managed to avoid potential health effects on nearby residents. In 2009 the bypass has been delayed and is not likely to start at earliest until March/April 2010.

In late November hydrogen sulphide bubbles were observed along the front of the sea grass wrack in the intertidal area and extending from 10 to 20 metres into the ocean. Separate community and Shire monitoring of the hydrogen sulphide levels at those times showed exceedances of the Department of Health (DOH) recommended short-term air quality health limit. Possible health effects at the hydrogen sulphide levels measured could include worsening of asthma, eye irritation, nausea and dizziness.

The DOH considers that this bubbling is the result of decomposition of buried sea grass which is likely to be most pronounced in the wet intertidal area. The emissions are likely to continue but only be evident as bubbles and a strong smell under certain weather conditions such as when winds are light in the early morning. The DOH will continue to monitor the situation.

As it is possible that further air quality exceedances could occasionally occur, the DOH has recommended that general access to the affected area be restricted through warning signage. It is advisable not to enter the wrack area, however, air monitoring at the closest residences has indicated that the hydrogen sulphide levels continue to be well below recommended limits.

Further information is available as follows: DOH can advise on the effects of hydrogen sulphide – 9388 4999; the Busselton Shire in relation to the accumulation of the sea grass - 9781 0444; and Department of Transport for any enquiries concerning the sand bypassing operation - 9216 8018. In addition DOH has relevant health guidance material at the following website:

http://www.public.health.wa.gov.au/3/979/2/port_geographe.pm

