



4/4/07

## Media Statement

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### Investigation into lyngbya bloom at Roebuck Bay

The Department of Environment and Conservation (DEC), in collaboration with the Roebuck Bay Working Group, has begun an investigation into the ongoing problem of the toxic blue-green algae lyngbya (*Lyngbya majuscula*) at Roebuck Bay in Broome.

DEC District Conservation Coordinator Troy Sinclair said lyngbya had occurred previously on the intertidal flats between Dampier Creek and Broome Port. In recent years the outbreaks have been more severe than those observed 10 years ago.

“Lyngbya occurs naturally in tropical areas across much of the equatorial/tropical zone, but can bloom in other areas, such as Roebuck Bay, at times of elevated nutrient inputs,” he said.

“The seasonally high level in Roebuck Bay is extremely problematic for natural ecosystems, recreational activities and commercial fishing.

“This particular species can be severely toxic at stages in its growth leading to negative impacts on wildlife and can cause a range of symptoms in humans who come in contact with the blooms.

“Ecologically, lyngbya competes with seagrasses, leads to a reduction in their density and adversely impacts on animal species ranging from fish to dugong and turtles.”

Mr Sinclair said DEC had begun preliminary investigations into the latest lyngbya outbreak to determine the status and threat posed by the blooms as well as the likely source of any elevated nutrient inputs that are causing the blooms.

“Recent investigations found that though lyngbya is widespread along the town beaches on the north-western side of Roebuck Bay, it is thinly spread with a patchy distribution,” he said.

“Findings from studies in 2003, using stable isotopes of carbon and nitrogen to identify the main sources of energy driving the food webs in the bay, show elevated nutrient levels.

“The source of enrichment is currently unknown but could be related to urban run-off or groundwater discharge from the Broome township. It may also be a combination of the two.

“At least 20 surface water drains were found carrying urban run-off onto the intertidal zone and remedial action may be required to properly manage these possibly adverse water inflows and the likely high level of nutrients they bring into the bay during the first rains.”

Mr Sinclair said there were indications that groundwater may also be carrying nutrients into the bay.

“DEC will be conducting further investigation by installing shallow bores to measure nutrient loads and may monitor existing bores for nutrients,” he said.

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