

Alarm over 'alum sludge' from water treatment plant

Predeep Nambiar May 7, 2021 11:28 PM



The brown sludge covering the surface of the river. The PBAPP says it is not hazardous but environmentalists do not agree.

GEORGE TOWN: Three rivers in Seberang Perai have been covered in what looks like thick brown mud, and a green group here has raised the alarm over potential heavy metal pollution there. They believe the "sludge" is a by-product of a major water treatment plant which supplies water to 80% of Penang.

The Penang Water Supply Corporation (PBAPP) which runs the plant was swift to deny the claim, but the Penang sustainable natural heritage association (LEKAS) is standing its ground, saying the pollution has to be investigated.

PBAPP said the brown sludge was essentially residual aluminium resulting from one of their treatment plants and was not hazardous to health and the aquatic environment. It said if it was indeed dangerous, then these rivers would be depleted of marine life.

In a press conference today, LEKAS' chief Zikrullah Ismail said the key concern was a sludge lagoon to treat the heavy metals, which was absent in PBAPP's Sungai Dua Water Treatment Plant near Butterworth, which draws water from Sungai Muda.

Sludge lagoon are ponds that treat wastewater through physical, biological and chemical processes, and are lined with clay or an artificial liner, to prevent leaks to the groundwater below.

Zikrullah said the direct discharge of the “alum sludge” from the treatment plant into the tributaries of Sungai Perai was “concerning” and urged the authorities, such as the PBAPP and the environment department to carry out studies immediately.



Zikrullah Ismail showing the main discharge drain of PBAPP’s Sungai Dua Water Treatment Plant. The drain discharges effluents into Sungai Merbau Kudong, then Sungai Perai Mati which finally ends up in Sungai Perai.

He claimed that Sungai Merbau Kudong, Sungai Perai Mati and Sungai Perai have been affected by the alum sludge. This was because a giant discharge drain from the treatment plant is taking the sludge into these rivers, he said. He also showed the “teh tarik” coloured sludge being pumped out of the plant during a media visit.

Showing several scholarly articles from a few universities, he said alum sludge was harmful to agriculture and toxic in the long run.

Zikrullah said alum sludge was considered a scheduled waste under the Environmental Quality Act 1974 and PBAPP should not put the environment at risk by releasing such effluents into the river. “We need proper tests of water samples at these rivers,” he said.



Oren : Longkang Discharge Utama enap cemar LRA Sungai Dua

Merah : Sungai Merbau Kudong

Kuning : Sungai Prai Mati

Biru : Sungai Prai

An explainer of how the alum sludge ends up in the Sungai Perai river, as claimed by LEKAS.

PBAPP's CEO Jaseni Maidinsa, however, said the group was being alarmist, adding that the residue was harmless. He said that according to the National Water Services Commission, all treatment plants produced 5,500 metric tons of residue daily.

He said tests had shown that the substance was non-toxic and was not scheduled waste. PBAPP, he said, had even won awards by turning the residue into bricks to be used in construction.

Jaseni said a study in 2008 showed that residue from water treatment plants is not listed as a scheduled waste by environmental regulators in the US, Canada and the UK.

"The Sungai Dua plant has been operating since 1973. In the past 48 years, there has been no reported incident of water contamination in Sungai Perai due to any discharge of residue.

"If the residue was hazardous, there would be no fishes in Sungai Perai."