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Media Release by DATO' IR. JASENI MAIDINSA CEO, PBA Holdings Bhd and PBAPP

## TESTS AND FACTS SHOW THAT RESIDUE FROM WATER TREATMENT PLANTS IN MALAYSIA IS NOT HAZARDOUS

- Results of "health hazard tests" indicate that the typical residue from Malaysian water treatment plants (WTPs) is NOT toxic, corrosive, carcinogenic, ignitable and hazardous to the aquatic environment.
- WTP residues are used in Japan as "fill material" for children's playgrounds; and in The Netherlands as fertiliser and construction material.

PENANG, Friday, 7.5.2021: The water treatment residue (WTP residue) that is discharged from the Sungai Dua Water Treatment Plant (Sungai Dua WTP) into a tributary of Sungai Perai is not hazardous to human beings and the aquatic environment.

The main content of the WTP residue is residual aluminium resulting from the use of aluminium sulphate or polyaluminium chloride for the coagulation process in conventional water treatment.

The Sungai Dua WTP is not the only WTP in Malaysia that discharges WTP residue into rivers. The National Water Services Commission (SPAN) has estimated that WTPs in Malaysia produced a total of 5,500 metric tons of WTP residue per day.

The following table summarises test results and findings from studies conducted on WTP residue in Malaysia:



Year 2009	Organisation Malaysia Water Association (MWA) "Health Hazard Test"	<ul> <li>Key Results</li> <li>Non-toxic</li> <li>Non-corrosive</li> <li>Non-carcinogenic</li> <li>Non-ignitable</li> <li>Non-hazardous to the aquatic environment</li> </ul>	Notes Report to the (former) Ministry of Energy, Green Technology and Water (KeTTHA) in 2017.
2009	Pengurusan Aset Air Berhad (PAAB)	Does not exhibit characteristics of "scheduled waste"	Study and report on "WTP Residual Management in Malaysia".
2009	PBAPP	Does not exhibit characteristics of "scheduled waste"	Study on the "Physical properties, chemical and toxicity characteristics of Sungai Dua WTP residuals."
2017	Malaysian District Water Engineers Action Committee (JTJAD)	<ul> <li>Non-toxic</li> <li>Non-corrosive</li> <li>Non-ignitable</li> <li>Not reactive</li> </ul>	Report to the Department of Environment (DoE).

## Not hazardous, not only in Malaysia

The non-hazardous nature of WTP residue is backed up by the following facts:

- In Kyoto, Japan, WTP residue is recycled as "fill material" for children's playgrounds.
- In The Netherlands, WTP residue is recycled as fertiliser and building construction material.
- In Penang, PBAPP has won awards for completing a research project to produce bricks from WTP residue.



- According to a 2008 joint study by MWA and UTM, WTP residue is not listed as a "scheduled waste" by environmental management authorities in Canada, USA and the United Kingdom.
- The Sungai Dua WTP has been operating since 1973. In the past 48 years, there has been no reported incident of water contamination in Sungai Perai resulting from the discharge of WTP residue.

If WTP residue was hazardous to the aquatic environment, there would be no fishes in Sungai Perai.

## National WTP residue management in the works

In a parliamentary reply to Tanjong MP YAB Tuan Chow Kon Yeow in November 2020, the Ministry of Water and Environment (KASA) stated that WTP residue would eventually be regulated by SPAN under the National Water Services Industry Act 2006 (WSIA).

KASA stated that it was in the process of amending the WSIA to include WTP residue as being part of the water supply system; and that its regulation would include provisions for the setting up of common facilities to treat, recycle and/or dispose of WTP residue properly in Malaysia.

PBAPP is working closely with KASA, SPAN and DoE in handling the water treatment plant residue and ensuring the sustainability of Sungai Perai.

Thank You.

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