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Media Release

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OPTIMISING THE EXPANDED MENGGUANG DAM WITH A NEW WATER TREATMENT PLANT

- **New 114 MLD Mengkuang Park Water Treatment Plant will produce more treated water in SPT for supply in SPT.**

PENANG, Saturday, 9.5.2026: PBAPP is building a new water treatment plant that will optimise the utility of the Expanded Mengkuang Dam (EMD) in Seberang Perai Tengah (SPT).

The RM250 million Mengkuang Park Water Treatment Plant (WTP) is taking shape below the crest of the EMD. Work on this new WTP began on 19.5.2025; and it is scheduled for completion by November 2026.

It is the 1st of 4 new WTPs that PBAPP is developing for Penang under Phase 2 of its Water Contingency Plan 2030 (WCP 2030).

Three other WTPs to tap Sungai Kerian, Sungai Perai and Sungai Muda are scheduled for completion by 2030.

In total, Phase 2 will increase PBAPP's water treatment capacity in Seberang Perai by 478 MLD. As such, Seberang Perai will be less dependent on treated water from the Sungai Dua WTP.

This will allow PBAPP to channel more treated water from Sungai Dua to Penang Island through dedicated pipelines and the 3rd Penang Twin Submarine Pipelines (3rd PTSP).

EMD conversion

Please note that the commissioning of the Mengkuang Park WTP in 2026 will “convert” the EMD from a pure “strategic drought reserve dam” into a “dual-purpose dam.”

The Mengkuang Park WTP will draw down water from the EMD daily to produce more treated water in SPT, for supply in SPT.

At the same time, the EMD will continue to serve Penang as a “back-up dam” for dry seasons and other Sungai Muda emergency scenarios.

The key rationales for this EMD conversion are:

- Penang is a small state with limited raw water resources. In striving to ensure water supply sufficiency until 2030, PBAPP must optimise all available raw water resources.
- The EMD is the largest dam in Penang. Its maximum effective capacity is 86,400 million litres (ML). In comparison, the maximum effective capacities of the Air Itam Dam and Teluk Bahang Dam are 2,159 ML and 18,240 ML respectively.
- Since the Federal Government’s partial hand-over of the EMD in 2021, its effective capacity has not dropped below 80%. As such, its utility as a key Penang water asset may be further optimised.
- With the commissioning of the 440 MLD Lahar Yooi Pump House in 2028, the EMD may be refilled more rapidly and efficiently during the wet seasons.
- In 2025, water consumption in SPT was 206 MLD, the highest of the 5 districts in Penang. By itself, SPT accounted for about 23.8% of Penang’s average daily water consumption of 865 MLD in 2025.

Looking ahead, water production is projected to increase to 297 MLD or more by 2032, primarily due to property development and industrial investments and new residential development in SPT.

However, PBAPP will monitor the effective capacity of the EMD closely and continuously. We may reduce or stop producing treated water at the Mengkuang Park WTP if the dam’s effective capacity drops to an alert level.

We will make sure that the daily operations of the Mengkuang Park WTP does not compromise the EMD’s role as Penang’s most important emergency scenario dam.

Thank You.

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