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Media Release

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NEW RM250 MILLION WATER TREATMENT PLANT TO TAP THE EXPANDED MENGKUANG DAM ON A DAILY BASIS.

- **Mengkuang Park Water Treatment Plant will produce 114 million litres per day (MLD) of treated water in Seberang Perai Tengah (SPT).**
- **Targeted completion: November 2026.**

PENANG, Saturday, 24.5.2025: PBAPP is building a new water treatment plant (WTP) that will tap the state's largest dam, the Expanded Mengkuang Dam (EMD) on a daily basis.

Penang Chief Minister YAB Tuan Chow Kon Yeow officiated the ground-breaking ceremony of the RM250 million **Mengkuang Park WTP**, which is located just about 550m away from the EMD in Seberang Perai Tengah (SPT) today.

This new WTP will have a maximum design capacity of 114 million litres per day. It is scheduled for completion in November 2026, about 18 months from now.

Converting the EMD into a “dual purpose dam”

One of the most important aspects of this Mengkuang Park WTP project is that it changes the status of the EMD, which has an effective capacity of 86,400 million litres (ML).

Since 1985, this dam has been classified as a “strategic drought reserve.”

PBAPP had only drawn down water from the EMD to support the Sungai Dua WTP, Penang's largest WTP, when it is unable to abstract sufficient raw water from Sungai Muda or during emergency scenarios involving Sungai Muda.

However, from November 2026, raw water from the EMD will be drawn down daily for use in the Mengkuang Park WTP.

The EMD will then be re-classified as a “dual purpose dam.”

It will serve as a raw water resource for the Mengkuang Park WTP under normal circumstances and a back-up raw water resource for the Sungai Dua WTP under abnormal circumstances.

Unlike Penang's other daily dams (such as the Teluk Bahang Dam and Air Itam Dam), the EMD is not "dependent" on rainfall in its 3.9km² water catchment area. It is primarily refilled by raw water pumped from Sungai Kulim during wet seasons.

In 1985, the original Mengkuang Dam was officially opened by the late Tun Dr. Awang bin Hassan, who was then serving as the Yang DiPertua Negeri Pulau Pinang, with a maximum effective capacity of 23,600 ML.

On 9.1.2021, YAB Tuan Chow opened the "Expanded Mengkuang Dam", with an upgraded maximum effective capacity of 86,400 ML.

Since January 2021, the effective capacity of the EMD has not dropped below 85%. This reflects its viability as an additional daily raw water resource.

Please note that the EMD's effective capacity of 86,400 ML is roughly 4.7 times the maximum effective capacity of the Teluk Bahang Dam (18,240 ML) and 40 times the maximum effective capacity of the Air Itam Dam (2,159 ML).

PBAPP will manage and monitor the effective capacity of the EMD every day to sustain its viability as a daily dam. PBAPP may reduce or stop daily drawdowns from the EMD if its effective capacity drops below 40% (34,560 ML) during a severe El Niño phenomenon in the future.

Additional 114 MLD in Seberang Perai

The primary benefit of the Mengkuang Park WTP is the production of up to 114 MLD of additional treated water in SPT, primarily for distribution in SPT.

Today, a high percentage of the treated water that is supplied in SPT comes from the Sungai Dua WTP in SPU. When the Mengkuang Park WTP is operational, SPT will be less dependent on treated water from Sungai Dua.

As such, the Mengkuang Park WTP will also indirectly benefit water consumers in Seberang Perai Utara (SPU) and Seberang Perai Selatan (SPS). Theoretically, if the Mengkuang Park WTP produces up to 114 MLD of treated water for supply in SPT, PBAPP may divert more treated water from the Sungai Dua WTP to SPU and SPS.

Project components

The project encompasses the construction of a 114 MLD water treatment module, backwash pump house, chemical dosing building, clear water tank, sludge treatment building, scour pump and chemical waste sumps, detention pond and an

administration building equipped with a supervisory control and data acquisition (SCADA) system.

The contract also covers the laying of a 1,200mm raw water drawdown pipeline (from the dam) and a 900mm treated water output pipeline (for connection to existing treated water supply mains), as well as all associated civil, structural, mechanical and electrical works.

3rd WCP project underway

Site works for the Mengkuang Park WTP have started from 19.5.2025. PBAPP will supervise and oversee all works to ensure its timely completion by November 2026.

The Mengkuang Park WTP is the 3rd Water Contingency Plan 2030 (WCP 2030) project. In 2024, we successfully commissioned the 10 MLD DAF module in Bukit Panchor and 114 MLD Package 12A water treatment module in Sungai Dua in 2024.

There are 5 WCP 2030 projects to go before 2030. PBAPP is moving forward as planned.

Thank You.

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