

25.6.2020

PRESS STATEMENT

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**MENGGUANG DAM EXPANSION PROJECT:
 PENANG STILL WAITING FOR THE FEDERAL GOVERNMENT
 TO COMPLETE ALL PHASES**

Outstanding Works:

- **Phase 2B: Laying of 7km of pipelines from the Mak Sulong Pumping Station to the Sungai Dua Canal.**
- **Phase 2C: Construction of the 440MLD Lahar Yooi Pumping Station.**

PENANG, Thursday, 25.6.2020: Penang is still waiting for the Federal Government to complete the Mengkuang Dam Expansion Project (MDEP).

Nevertheless, PBAPP has advised the Penang State Government to accept a conditional handover of the Mengkuang Dam, provided the Federal Government confirms its commitment to complete and commission Phases 2B and 2C of the MDEP.

The dam itself has been expanded. However, dam expansion represents only 1 of the 4 key phases of MDEP works. Without the commissioning of the remaining 2 phases, the MDEP cannot function fully as Penang's strategic drought solution.

The following table outlines the status of works for each phase:

| Phases | Cost | Status |
|--|----------------------|-------------------------|
| 1 Mengkuang Dam expansion and associated works, to increase the maximum raw water storage capacity from 22 billion litres (BL) to 73.5BL. | RM607 million | Completed on 10.4.2017. |



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| Phases | Cost | Status |
|--|--|--|
| <p>2A Upgrading of the Mak Sulong Pumping Station and associated works to increase raw water pumping capacity (from 200 million litres per day, or MLD, to 400 MLD).</p> <p>This pumping station was built to pump raw water from Sungai Kulim to fill the Mengkuang Dam.</p> | <p>RM63.5 million</p> | <p>Completed on 28.9.2017.</p> |
| <p>2B Laying of 7km of 1.6-meter diameter mild steel pipelines from the Mak Sulong Pumping Station to the Sungai Dua Canal to upgrade raw water delivery capacity from 300 MLD to 600 MLD.</p> <p>This phase is critical to enable the delivery of more raw water from the dam to the Sungai Dua Water Treatment Plant (WTP) during the dry season.</p> | <p>RM100 million (estimate)</p> | <p>Outstanding. During a meeting on 2/4/2018, the Federal Government agreed to undertake this phase.</p> <p>Expected to be completed in 2022.</p> |
| <p>2C Construction of 440 MLD Lahar Yooi Pumping Station and associated works.</p> <p>This phase is important to expedite refilling the dam, by pumping excess raw water from Sungai Muda during the wet season.</p> | <p>RM80 million (estimate)</p> | <p>Outstanding. During a meeting on 2/4/2018, the Federal Government agreed to undertake this phase.</p> |

Limited Functionality

As at 24.6.2020, the effective capacity of the Mengkuang Dam was 84.5%. The effective storage was 67,654 million litres of water.

- Without the Phase 2B pipelines, the maximum volume of water that may be drawn down from the dam daily is limited to 300 million litres per day (MLD).

Penang's average daily water consumption was 843 MLD in 2019. As such, 300 MLD is obviously not enough to meet Penang's treated water needs during an emergency drought scenario.

- The Phase 2C Lahar Yooi Pumping Station has not been built yet.

Additionally, the Federal Government has agreed to build a new RM100 million barrage across Sungai Muda, in Rantau Panjang, in a meeting on 2.4.2018. This new barrage will replace the existing 47-year-old barrage. Its purpose is to prevent seawater incursion, as well as to help sustain optimal river levels during the dry season.

Conditional Handover

It should be noted that the MDEP is a Federal Government project. In 2011, the Federal Government agreed to fund and undertake the MDEP, in accordance to agreements signed by Penang for migration to the National Water Services Restructuring Initiative (NWSRI).

The MDEP is meant to provide Penang with an expanded and comprehensive strategic drought solution, to mitigate the risks of climate change and increasing water demand.

Although the Mengkuang Dam capacity has been enlarged, the maximum drawdown is still 300 MLD, and we cannot refill it quickly, as yet.

Nevertheless, the Penang State Government is ready to accept a conditional handover of the Mengkuang Dam.

PBAPP has sent an official letter to the Chief Secretary of the Ministry of Environment and Water (KASA), dated 25.3.2020, outlining all of Penang's conditions for a conditional handover.

Risk Management

The primary rationale for a conditional handover is “risk management.”

In the period 1.9.2019 – 1.3.2020, PBAPP recorded 61.8% less rainfall in the Air Itam Dam's water catchment areas, and 49.8% less rainfall in the Teluk Bahang Dam's water catchment areas (as compared to the averages for 3 previous years). This reflects the impact of climate change in Penang and represents a threat to water supply security.

Accordingly, the effective capacities of the Air Itam Dam and Teluk Bahang Dam are abnormally low, at 46.5% and 24.2% respectively on 24.6.2020.

During the recent dry season, PBAPP has been drawing down from Mengkuang Dam but limited to 300 MLD only.

On its part, the Federal Government must complete and commission the 2 outstanding phases of the MDEP, as specified, so that the MDEP may fully function as Penang's strategic drought reserve.

Thank You.

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Mengkuang Dam is the largest dam in Penang and serves as a strategic drought reserve.