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Media Release

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**PHASE 2B, MENGKUANG DAM EXPANSION PROJECT (MDEP):
HANDOVER OF ADDITIONAL 300 MLD DRAWDOWN PIPELINE**

- **Expanded Mengkuang Dam (EMD) raw water drawdown capacity boosted from 300 million litres per day (MLD) to 600 MLD.**
- **Upgraded drawdown capacity will be useful to mitigate water supply issues during extended dry seasons and/or emergency scenarios involving Sungai Muda.**

PENANG, Friday, 16.2.2024: The Federal Government officially handed over Phase 2B of the Mengkuang Dam Expansion Project (MDEP) to the Penang State Government yesterday.

The MDEP is a Federal Government project that has been on-going since 2011. Yesterday, Ir. Norzani bt Mahmood, Deputy Director of Water Supply Division from the Ministry of Energy Transition and Water Transformation (PETRA), officially handed over Phase 2B to Penang State Secretary, Dato' Haji Rosli bin Isa representing the Penang State Government.

Phase 2B refers to the laying of 7km of a 1.6m diameter raw water pipeline from the Mak Sulong Pumping Station to the Sungai Dua Canal.

This pipeline effectively increases the drawdown capacity of the Expanded Mengkuang Dam (EMD) from 300 million litres per day (MLD) to 600 MLD. The estimated value of Phase 2B is RM72.5 million.

This boosted drawdown capacity will be useful to Penang and PBAPP during extended dry seasons and/or emergency scenarios involving Sungai Muda.

As such, I would like to thank the Federal Government and PETRA for handing over Phase 2B of the MDEP to the Penang State Government yesterday. In turn, the Penang State Government has handed over the project to PBAPP to manage for the benefit of water consumers in Penang.

The Sungai Muda, Sungai Dua WTP and EMD “relationship”

Under normal conditions, PBAPP abstracts more than 1,000 MLD of raw water from Penang’s primary raw water resource, Sungai Muda, at the Lahar Tiang Intake in Seberang Perai. The raw water from Lahar Tiang is channeled through the 14km Sungai Dua Canal to the Sungai Dua Water Treatment Plant (WTP).

The Sungai Dua WTP produces treated water that is distributed to about 465,000 water consumers in Seberang Perai, as well as in the South-West and North-East Districts (DBD and DTL) on Penang Island.

Under “abnormal circumstances”, PBAPP may now draw down up to 600 MLD of raw water from the EMD. This 600 MLD will be channeled from the dam to the Sungai Dua Canal and, subsequently, to the Sungai Dua WTP.

Two key facts should be noted:

1. The EMD is fundamentally a strategic drought dam. It is NOT a daily dam like the Air Itam Dam or Teluk Bahang Dam on Penang Island. The EMD’s reserves will only be drawn down during dry seasons and emergency response scenarios when PBAPP is unable to abstract sufficient raw water from Sungai Muda.
2. As at February 2024, the Sungai Dua WTP requires at least 1,000 MLD of raw water to produce sufficient treated water for all the water consumers in its service area.

Even with the new Phase 2B pipeline, the maximum drawdown from the EMD is 600 MLD, which is still 400 MLD short of 1,000 MLD. This means that the EMD still cannot “fully back-up” Sungai Muda as a raw water resource for Penang.

Targeting 1,000 MLD drawdown from the EMD

In 2022 and 2023, there were “3 Sungai Muda Incidents” mishaps originating in Kedah that forced PBAPP to shut down the Sungai Dua WTP: “Baling Flood Waters 1” in July 2022, “Sudden Drop in River Level” in May 2023 and “Baling Flood Waters 2” in September 2023.

Each of the Sungai Dua WTP shutdowns affected water supply services for about 465,000 consumers in Penang for several days.

In order to “insulate Penang” from the negative impacts of future Sungai Muda incidents, PBAPP is proposing the laying of additional pipelines to further boost the EMD’s drawdown capacity by 400 MLD to 1,000 MLD. With a 1,000 MLD drawdown capacity from the dam, the Sungai Dua WTP need not be shut down when there is another Sungai Muda Incident.

In other words, PBAPP is planning to ensure that Penang water consumers will not suffer whenever a mishap occurs in Kedah in the future.

The laying of the additional 400 MLD pipelines by PBAPP is likely to cost more than RM100 million. The project implementation will require a timeframe of at least 3 years, if it is fast-tracked.

PBAPP will submit a detailed plan and a ballpark investment budget for the approval of the Board of Directors of PBA Holdings Bhd, the Penang State Government and the National Water Services Commission (SPAN).

The goal is to minimise Penang’s water supply risks and protect the interests of 465,000 Penang water consumers. These water consumers include the multinational manufacturing corporations, international hotels and a dynamic services sector that contribute significantly to Penang’s GDP.

Thank You.

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