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Perbadanan Bekalan Air Pulau Pinang Sdn Bhd
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Memenuhi segala keperluan bekalan air anda
Meeting all your water supply needs

4.10.2023
Media Release

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PBAPP WILL TABLE "SUNGAI MUDA CRISIS MANAGEMENT PLAN" SOON

- **3 major incidents of state-wide unscheduled water supply interruptions related to Sungai Muda incidents in Kedah since July 2022.**

- **PBAPP will seek approvals to implement suitable "preventive engineering solutions" to minimise the impacts of recurrences.**

- **Phase 2B of the Mengkuang Dam Expansion Project (MDEP) must be expedited to increase emergency drawdowns from the Expanded Mengkuang Dam (EMD) to 600 million litres per day (MLD).**

PENANG, Wednesday, 4.10.2023: Perbadanan Bekalan Air Pulau Pinang Sdn Bhd (PBAPP) will table a "Sungai Muda Crisis Management Plan" (SM-CMP) to the Penang State Government soon.

The SM-CMP will present a list of the most viable and cost-effective water supply engineering solutions that will "better insulate" Penang water consumers from the impacts of future "Sungai Muda incidents" in Kedah. These solutions include:

Preventive engineering projects		Key details
1.	**400 MLD Emergency Drawdown Pipelines**	• Connecting the Expanded Mengkuang Dam (EMD) to the Sungai Dua Canal. • Boost maximum emergency drawdowns from 300 MLD (million litres per day) currently to 600 MLD, and subsequently to 1,000 MLD.
2.	**Raw Water Pre-Treatment Works**	• Pre-filter/treat raw water entering the Sungai Dua WTP. • Effective removal of particles and sediments from highly muddy/turbid raw water from Sungai Muda. • Subject to feasibility studies.
3.	**Off-river Raw Water Storage Facility (TAPS) (Mini Riverside Dam)**	• 24-36 hours supply of raw water on stand-by (1,000 – 1,500 million litres) • Pumped to Sungai Dua Canal when needed. • Upstream or downstream of Lahar Tiang.

4.	**Sungai Dua Balancing Pond 2**	Higher volume of "settled water" (170 million litres) with lower content of particles and/or sediments near the Sungai Dua WTP.
5.	**Sungai Dua Treatment Works Upgrade**	Upgrading water treatment modules' capabilities to treat more muddy/turbid water, from a maximum of 1,000 NTU (nephelometric turbidity units) to 2,500 NTU. • Subject to feasibility studies.

4 Important Considerations

The SM-CMP solutions may be implemented separately, progressively or concurrently to minimise the negative impacts of future Sungai Muda incidents on water supply services in Penang.

However, 4 things should be considered:

- Each solution is likely to cost **hundreds of millions of ringgit** in investment that will be re-couped progressively through future water tariffs in Penang. PBAPP is finalising specific project cost estimates before tabling the overall plan for approval.

- Some solutions might not be cost-effective or valued engineering solutions.

- Each solution is subject to **approval by the Penang State Government and the National Water Services Commission (Federal Government)**.

- Each solution may take **years to complete and commission.** All major water supply engineering works undertaken by PBAPP in Penang will have to legally comply with **government regulations and standard operating procedures (SOPs)**.

Rationale for SM-CMP

The primary rationale for the implementation of the SM-CMP is **public feedback, complaints and dissatisfaction.**

PBAPP serves a customer base of 676,857 water consumers in Penang. About 465,004 (68.7%) of them are dependent on treated water from the Sungai Dua WTP which treats raw water abstracted from Sungai Muda. Without the SM-CMP, their water supply in Penang is likely to be affected whenever a Sungai Muda incident occurs.

Since July 2022, there have been 3 state-wide water crises in Penang: "Baling Flood Waters 1" (July 2022); "Sudden Drop in River Level" (May 2023) and "Baling

Flood Waters 2" (September 2023). All 3 mishaps arose from **incidents involving Sungai Muda that originated in Kedah.**

In all likelihood, there will be more future mishaps in Kedah that will threaten water supply services in Penang on a state-wide basis.

Phase 2B of the MDEP: Further Delay

Phase 2B of the Mengkuang Dam Expansion Project (MDEP) has been further delayed and will not be completed in 2023. Completion has been re-scheduled to early January 2024.

Phase 2B involves the laying of a 7km x 1.6m diameter pipeline from the Mak Sulong Pumping Station near the Expanded Mengkuang Dam (EMD) to the Sungai Dua Canal. This new pipeline will upgrade raw water drawdown capacity by 300 MLD.

The MDEP is a Federal Government project. Its full completion has been delayed by years since 2016. As such, the EMD may not function fully yet as Penang's "back-up" resource whenever a Sungai Muda incident occurs.

Presently, PBAPP is only able to draw down a maximum of 300MLD from the EMD. 300 MLD is not enough. The Sungai Dua WTP needs about 1,100 MLD of raw water daily to produce 1,000 MLD of treated water.

When Phase 2B is commissioned, the maximum drawdown capacity will be increased to 600 MLD. If we add on the proposed new 400 MLD Emergency Drawdown Pipelines (as proposed under the SM-CMP), the EMD's total maximum drawdown capacity will then be 1,000 MLD, which would be close enough to the 1,100 MLD that the Sungai Dua WTP needs to operate optimally.

As such, PBAPP would like to appeal to the Federal Government to kindly expedite the completion of Phase 2B as soon as possible.

Phase 2B will serve as a useful buffer to minimise the impact of Sungai Muda incidents in the near future, until PBAPP implements approved SM-CMP solutions for Penang.

Thank You.

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