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MEDIA RELEASE 2

EXPANDED MENGGUANG DAM WILL “BACK-UP” WATER SUPPLY OPERATIONS IN THE 2021 DRY SEASON

- **When the river level of Sungai Muda river runs low, PBAPP will draw down the raw water reserves of the Mengkuang Dam to supplement raw water supply to the Sungai Dua Water Treatment Plant.**

PENANG, Saturday, 9.1.2021: The expanded Mengkuang Dam will serve as a useful strategic drought reserve for Penang during dry seasons.

PBA Holdings Bhd and PBAPP CEO Dato’ Ir. Jaseni Maidinsa said the expanded Mengkuang Dam was the core component of the “Mengkuang Pumped Water Storage Scheme”.

“Unlike the Air Itam Dam and Teluk Bahang Dam that store water from nearby catchment areas, the Mengkuang Dam was expanded to primarily store raw water pumped from rivers during wet seasons. This raw water may then be released from the dam for use at the Sungai Dua Water Treatment Plant (WTP) during dry seasons,” he said.

The Sungai Dua WTP in Seberang Prai is the most important water treatment plant in Penang because it produces more than 80% of Penang’s treated water daily.

“Under normal conditions, PBAPP abstracts raw water from Sungai Muda, at Penang’s Lahar Tiang Intake, for treatment at the Sungai Dua WTP.

“However, during dry seasons, when Sungai Muda’s river levels run low, the raw water reserves of the Mengkuang Dam will come into play. We must draw down on this dam’s reserves to supplement raw water supply to the Sungai Dua WTP,” he said.

“This is why it is good to have a relatively full Mengkuang Dam as we prepare to face the next dry season from the beginning of 2021,” Dato’ Ir. Jaseni said. The effective capacity of the Mengkuang Dam was 93.9% on 1.1.2021.

He referred to the Penang State Government’s decision to take back the Mengkuang Dam from the Federal Government on 26.10.2020 as a necessary and strategic water supply decision.

He said abnormally low rainfall over Penang Island in the period from July 2019 to September 2020 had caused an abnormal depletion of the reserves of the Air Itam Dam and the Teluk Bahang Dam.

“Rainfall at the end of 2020 has helped to refill the Air Itam Dam and Teluk Bahang Dam on Penang Island. However, the 2021 dry season has commenced from this month, and the Teluk Bahang Dam’s reserves was 58.7% on 1.1.2021.

“Accordingly, we may have to increase water production at the Sungai Dua WTP during the 2021 dry season to help meet water supply needs on the island,” he said.

As such, he added, the sustainability of continuous good water supply on Penang Island throughout 2021 might be dependent on two key factors:

- Availability of raw water from Sungai Muda, backed up by the reserves of the Mengkuang Dam, for treatment at the Sungai Dua WTP; and
- Optimization in the delivery of treated water from the Sungai Dua WTP to the island via the new 3rd Penang Twin Submarine Pipeline (3rd PTSP), which was commissioned on 19.11.2020.

“In 2019 and 2020, we have experienced the impact of climate change and the threat to water supply services in Penang. As such, we must utilise all available resources to mitigate the risks of a water shortage in Penang in 2021 and the years to come,” he added.

Two phases of MDEP still outstanding

Although the expanded Mengkuang Dam has been handed over, Dato' Ir. Jaseni noted that two phases of the Mengkuang Dam Expansion Project (MDEP) were still outstanding and awaiting implementation by the Federal Government.

Phase 2B refers to the laying of 7.0km of a 1.6m diameter raw water pipeline from the Mak Sulong Pumping Station to the Sungai Dua WTP. Its commissioning will upgrade raw water draw down capacity from 300 million litres per day (MLD) to 600 MLD.

Phase 2C refers to the 440 MLD Lahar Yooi Pumping Station. Its commissioning will enable the pumping of an additional 440 MLD of raw water into the dam from a second raw water resource: Sungai Muda.

“In 2019, Penang’s average treated water consumption was 843 MLD. At present, PBAPP may only draw down a maximum of 300 MLD from the expanded Mengkuang Dam. 300 MLD may not be enough. We need Phase 2B to draw down up to 600 MLD to mitigate water supply risks during a severe drought scenario.

“We also need Phase 2C urgently because we now have a huge 86.4 billion litre dam that must be refilled promptly during the wet seasons. We should not rely solely on Sungai Kulim. We must pump raw water from Sungai Muda for storage during the wet seasons as well.

“In other words, we are counting on the Federal Government to complete Phase 2B and Phase 2C quickly, so that Penang may optimise the strategic potential of the expanded Mengkuang Dam,” Dato' Ir. Jaseni added.

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