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Press Statement

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PBAPP EXPEDITING 2 PROJECTS AT THE SUNGAI DUA WATER TREATMENT PLANT

PENANG, Friday, 10.6.2022 : Perbadanan Bekalan Air Pulau Pinang Sdn Bhd (PBAPP) is expediting the implementation of 2 urgent projects to increase the capacity of the Sungai Dua Water Treatment Plant (Sungai Dua WTP):

1. Phase 2 Sedimentation Tanks Upgrade Project: This project began in October 2020. It involves the upgrading of 6 existing sedimentation tanks in stages.

The level of completion is at 67%, with 4 upgraded tanks now functioning optimally. When all the 6 upgraded tanks are fully operational in October 2022, the water treatment output of the Sungai Dua WTP will increase by another 30 million litres per day (MLD).

2. Package 12A, Sungai Dua WTP: Development of Package 12A is being expedited. Work has commenced from March 2022.

Package 12A involves the construction of a new and additional water treatment module in the Sungai Dua WTP. When commissioned in December 2023, it will increase the maximum design capacity of the Sungai Dua WTP by 114 million litres per day (MLD).

In total, full commissioning of these 2 projects will increase 144 MLD to this plant's output by December 2023.

The Sungai Dua WTP is the largest WTP in Penang and one of the largest WTPs in Malaysia. In 2021, its "maximum design capacity" was 1,228 MLD. However, there are 2 key considerations to be borne in mind when we discuss "maximum design capacity":

- Penang's non-revenue water (NRW) percentage was 23.6% in 2021, the lowest in Malaysia.
- Due to high turbidity of raw water from Sungai Muda, an 18-year-old dissolved air flotation (DAF) module in this plant cannot function optimally as per its maximum design capacity of 114 MLD. Today, this DAF module can only safely produce 28MLD.

In May 2022, this plant produced an average of 984MLD, with 752MLD actually reaching consumers' taps (minus 23.6% NRW). Kindly note that 984MLD in May 2022 is higher than its recorded output of 911MLD in May 2019, before the Covid-19 pandemic.

When Package 12A is commissioned in 2023, the Sungai Dua WTP's maximum design capacity would reach 1,342MLD; of which up to 1,025 MLD would be delivered to consumer's taps (minus 23.6% NRW).

Why Sungai Dua WTP?

PBAPP is working hard to fully commission the Phase 2 Sedimentation Tanks Upgrade Project and Package 12A to prevent widespread water supply interruptions caused by escalating water demand in Penang.

In 2019, before the Covid-19 pandemic, the average water consumption in Penang was 843 MLD. In May 2022, after we entered the endemic phase of Covid-19, average water consumption in Penang rose sharply to 945 MLD.

This means that there was a 12.1% surge in water consumption in 3 years. While it is an abnormal increase, PBAPP has no choice but to strive towards meeting Penang's higher water demand.

These 2 projects in the Sungai Dua WTP are the most cost-effective and fastest water supply projects to deploy by virtue of a strategic location in the Sungai Dua WTP. The advantages include:

- Access to raw water from Sungai Muda, Penang's most important raw water resource that can supply the highest volume of raw water for treatment;

- Access to raw water stored in the Expanded Mengkuang Dam, Penang's largest dam, during extended dry seasons when Sungai Muda river levels run low;
- Existing on-site water pumping facilities to deliver treated water throughout Seberang Perai as well as to Penang Island, via 3 sets of Penang Twin Submarine Pipelines (PTSPs);
- Direct and immediate connectivity to all major water supply mains and pipelines; and
- Comparatively low development costs and operational costs.

PBAPP is duty-bound to implement the most cost-effective and fastest solutions possible to meet Penang's increasing water demand. This is what we are doing now.

PBAPP has another 3 projects listed under its Raw Water Contingency Plan 2030 (RWCP 2030):

- Phase 1 Mengkuang Dam WTP (114 MLD from 2025);
- Phase 1 Sungai Muda WTP (114 MLD from 2028); and
- Sungai Perai Water Supply Scheme (136 MLD from 2028).

We have planned these projects to ensure water supply sustainability in Penang until 2030.

Thank You.

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