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Media Release by DATO' IR. JASENI MAIDINSA CEO, PBA Holdings Bhd and PBAPP

## PENANG'S 3<sup>RD</sup> SET OF TWIN SUBMARINE PIPELINES ARE NOW "ONLINE"

 The new 3<sup>rd</sup> Penang Twin Submarine Pipelines have been commissioned to deliver up to 315 million litres of treated water per day (MLD) to Penang Island.

PENANG, Wednesday, 30.3.2021: The 3<sup>rd</sup> Penang Twin Submarine Pipelines (3<sup>rd</sup> PTSP) have been commissioned to deliver up to 315 million litres of treated water per day (MLD), from Seberang Prai to Penang Island.

The 3<sup>rd</sup> PTSP was commissioned from 19.11.2020 as a key component of Perbadanan Bekalan Air Pulau Pinang Sdn Bhd's (PBAPP's) on-going contingency plan to ensure water supply sufficiency on Penang Island in this age of climate change.

This new set of twin submarine pipelines is delivering treated water from the Sungai Dua Water Treatment Plant (Sungai Dua WTP) in Seberang Prai to the Bukit Dumbar Reservoir and Pumping Station on Penang Island.

From Bukit Dumbar, the treated water is primarily pumped to the highly populated and economically significant southern areas of the island, including the Bayan Lepas Industrial Park. Treated water from Bukit Dumbar may be pumped to reach as far as Balik Pulau to support continuous good water supply, especially during prolonged dry seasons.

## 3 Sets of Twin Submarine Pipelines

The following table shows a snapshot of the key details of the 3 sets of submarine pipelines that are being managed by PBAPP in Penang:



Description	Year	Maximum capacity
1st Penang Twin Submarine Pipelines	1973	143 MLD
2 <sup>nd</sup> Penang Twin Submarine Pipelines	1995	250 MLD
3 <sup>rd</sup> Penang Twin Submarine Pipelines	2020	315 MLD
Total combined capacity		708 MLD

In 2020, the average daily consumption of water on Penang Island was 368 MLD, or 43.6% of the total state consumption of 845 MLD.

With the 3<sup>rd</sup> PTSP in service, the combined total capacity of the 3 existing twin submarine pipelines is now 708 MLD.

## 3<sup>rd</sup> PTSP: Key Benefits

The commissioning the 3<sup>rd</sup> PTSP backs up PBAPP's pledge of sustaining continuous good water supply on Penang Island, 24/7, now and in the post-Covid-19 pandemic recovery era.

In 1973, when the 1<sup>st</sup> PTSP was commissioned, the average water consumption on Penang Island was 93.3 MLD. In 2020, average water consumption on Penang Island was 368 MLD, reflecting a 394% increase in water consumption on the island over the past 48 years.

Climate change is also affecting water supply security on the island. Last year, on 5.9.2020, the effective capacities of the Teluk Bahang Dam and Air Itam Dam dropped to 16.0% and 33.3% respectively.

In view of these challenges, the key benefits of the 3<sup>rd</sup> PTSP are as follows:

- Enhanced water supply security for all domestic and trade water consumers on Penang Island: PBAPP can now pump more water safely from the Sungai Dua WTP to the island on a daily basis. The availability of more treated water helps to mitigate the risks of climate change and increasing water demand on the island.
- Mitigation of raw water risks on Penang Island during prolonged dry seasons: With more water available through the 3<sup>rd</sup> PTSP, PBAPP has the option to further minimise drawdowns from the Air Itam Dam and the Teluk Bahang Dam daily during dry seasons. This will prolong the reserves of the two dams until the rains arrive to replenish the dams from September to December yearly.



Work on the 3<sup>rd</sup> PTSP project commenced on 3.10.2016. This project was commissioned as scheduled on 19.11.2020.

The total cost of the project was RM114.3 million, involving 4 packages of works:

Package	Description	Timeline
1	Laying 0.9km of a 1,800mm pipeline in the Macallum Area (Penang Island).	3.10.2016 – 2.11.2017
2A	Laying 0.4km of a 1,800mm pipeline in Butterworth.	6.11.2017 – 26.7.2019
2B	Laying 0.4km of a 1,800mm pipeline in Butterworth.	6.11.2017 – 7.8.2019
3	Laying 3.2km of twin 1,200mm submarine pipelines in the channel between Butterworth and the Macallum Area.	18.9.2018 – 3.10.2020

The 3<sup>rd</sup> PTSP and the Expanded Mengkuang Dam (handed back to Penang on 26.10.2020 from the Ministry of Environment and Water) are the two newest key components of Penang's water supply infrastructure. Both are strategic components that will play significant roles in mitigating the risks of a water shortage in Penang state until 2025.

Thank You.

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3rd Penang Twin Submarine Pipeline (3rd PTSP) project, Macallum Site



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