

RM114 mil sub pipeline set to guarantee Penang's water security

3rd PTSP project commissioned last year will result in total 708 million litres per day transferred from mainland to island

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The third Penang Twin Submarine Pipeline project was commissioned by PBAPP last November. – File pic, March 31, 2021

A GEORGE TOWN – The Penang Water Supply Corporation (PBAPP) has commissioned its third twin pipeline across the state Channel at a cost of RM114.3 million to deliver up to 315 million litres per day (MLD) of treated water from the mainland to the island.

CEO Datuk Jaseni Maidinsa said the Penang Twin Submarine Pipeline (PTSP) project is a key component of the agency's contingency plan to ensure supply sufficiency on the island in this age of climate change.

The key benefit of the project, which started in October 2016, is that it will help sustain water supply on the island 24 hours a day, as pledged by PBAPP, he said.

Climate change has impacted water security on the island. On September 5 last year, the effective capacity of the Teluk Bahang and Air Itam Dams dropped to 16% and 33.3%, respectively.

Jaseni's announcement comes on the heels of Kedah Menteri Besar Muhammad Sanusi Md Nor threatening that Penang could get "muddy water" from Sg Muda should it refuse to pay raw water charges to his state, despite the principle of riparian rights.

Kedah last week announced plans to implement a riverside water catchment project, involving the construction of tanks, saying it is to stabilise Sg Muda's level during the dry season.

In response, Chief Minister Chow Kon Yeow said his administration will seek legal action against Kedah if the project threatens Penang's water supply.

The first PTSP was commissioned in 1973 and still handles 143 MLD, while the second was commissioned in 1995, handling 250 MLD.

With the latest twin pipeline commissioned last November, the three projects together have the capacity to transfer 708 MLD from the mainland to the island.

The latest project will deliver treated water from the Sg Dua treatment plant in Seberang Prai to the Bukit Dumbar reservoir and pumping station on the island.



“The treated water from the Bukit Dumbar reservoir is primarily pumped to the highly populated and economically significant southern areas of the island, including the Bayan Lepas Industrial Park,” said Jaseni.

“Treated water from Bukit Dumbar may be pumped to reach as far as Balik Pulau to support continuous water supply, especially during prolonged dry seasons.”

Last year, he said, the average daily water consumption on the island was 368 MLD, or 43.6% of the total state consumption of 845 MLD.

“This was a 394% increase in water consumption on the island over the past 48 years.

“In 1973, when the first PTSP was commissioned, the average water consumption on the island stood at 93.3 MLD.

“The third PTSP will enhance water supply security for domestic and industrial consumers on the island. PBAPP can now pump more water safely from the Sg Dua plant to the island on a daily basis.

“The availability of more treated water helps mitigate the risks of climate change and increasing water demand on the island.”

He stressed the need to mitigate raw water risks on the island during prolonged dry seasons.

The third PTSP and the expanded Mengkuang Dam project, which was handed back to the state last October by the Environment and Water Ministry, are the newest key components of Penang's water supply infrastructure, playing a significant role in mitigating supply shortages until 2025.