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PBAPP plans hybrid strategy to reduce Penang's reliance on Sungai Muda



GEORGE TOWN: The Penang Water Supply Corporation (PBAPP) is planning a hybrid water solution for the 2030s to reduce its over-reliance on Sungai Muda.

PBAPP chief executive officer Datuk K. Pathmanathan disclosed the strategy during a networking session with top non-domestic water consumers recently to outline the state's future water security framework.

He said Penang could no longer rely solely on Sungai Muda as its primary raw water resource, which currently supplies more than 80 per cent of the state's treated water via the Sungai Dua Water Treatment Plant.

The proposed "2030s Penang Hybrid Water Solution" features three main initiatives: the Perak-Penang Water Project, desalination projects and the Off-River Storage Scheme (ORSS).

Pathmanathan said the Perak-Penang Water Project is designed to supply 300 to 500 million litres per day (MLD) by tapping a second major water resource.

Penang recently signed a conditional agreement to buy treated water from Perak to secure the state's water supply from 2032 to 2072.

Chief Minister Chow Kon Yeow said PBAPP had signed a conditional Bulk Water Supply Agreement with Prasarana Air dan Irigasi Perak Sdn Bhd under the Perak-Penang Water Project.

As for the desalination projects, they are planned for strategic areas to generate 200 to 300 MLD, ensuring supply for growth in Seberang Prai Selatan and Seberang Prai Tengah while mitigating the impacts of climate change.

The ORSS is a 2,000 MLD facility at Sungai Muda that will act as a 24- to 36-hour reserve buffer during pollution or drawdown emergencies.

"Risks surrounding Sungai Muda have intensified due to Kedah's '5 Seasons, 2 Years' padi planting schedule, which increases upstream drawdowns and contributed to the Muda Dam dropping to critical levels earlier this year.

"Completing the current Water Contingency Plan 2030 (WCP 2030) serves as the first step before transitioning into the hybrid model, which requires substantial financial and time commitments," he said today.

Pathmanathan cited rapid industrial and economic development, including high-profile investments at Silicon Island A, Batu Kawan Industrial Park 3 and Andaman Island, as key factors driving future demand.

Projections indicate Penang's water consumption will surge 34.3 per cent from 865 MLD in 2025 to at least 1,162 MLD by 2032.