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PBAPP moots desalination projects to safeguard against future water shortages



GEORGE TOWN: Introducing desalination projects in the coming decade will reduce the risk of potential water shortages caused by low rainfall amid climate change, says the Penang Water Supply Corporation (PBAPP).

PBAPP chief executive officer Datuk K. Pathmanathan said Penang should consider introducing desalination projects in the 2030s as seawater desalination is a logical solution for an island state surrounded by the sea.

"The introduction of strategic desalination projects will help make Penang's water supply system weather-proof in the 2030s.

"The cost of desalination is significantly higher than the cost of conventional treatment of freshwater from streams and rivers but will make a difference," state publisher Buletin Mutiara reported on Wednesday (Sept 23).

He said potential strategic desalination projects are among the three key water supply milestones under the Penang Water Supply Roadmap (PWSR).

"The other two milestones are the ongoing six Water Contingency Plan 2030 (WCP 2030) projects to ensure sufficient water supply until 2030 and the purchase of 300 million litres per day (MLD) to 500 MLD of treated water from Perak under the inter-state Perak-Penang Water Project (P-PWP) from 2032.

"Looking ahead, Penang's water consumption is projected to increase from 865 million litres per day (MLD) in 2025 to 1,162 MLD or more in 2032.

"This projection is not guesswork.

"It is derived from data provided by multinational corporations, property developers and state government agencies who are undertaking various transformative projects in Penang," he said.

He said since 2022, Penang's population has increased by about 4% from 1.74 million people in 2022 to 1.81 million in 2025.

"During the same period, Penang's gross domestic product (GDP) contribution increased from RM112.1bil in 2022 to RM130.3bil in 2025, representing a 16.2% increase over four years," he said.

In November 2025, PBAPP revived its pilot desalination project on Pulau Aman, designed to produce 240,000 litres of potable water daily using saltwater reverse osmosis (SWRO) technology.

The RM3.81mil project started in 2015 and was completed in 2019 but was subsequently put on hold after the initial plant failed to meet safety standards for boron and total dissolved solids.