

Penang may emulate Singapore's desalination plants to ensure water security



Penang Water Supply Corporation (PBAPP) chief executive officer Datuk Jaseni Maidinsa said it is recommending that desalination works of seawater in Penang be initiated to meet future raw water supply demands beyond 2030. - NSTP/SHAHNAZ FAZLIE SHAHRIZAL

GEORGE TOWN: Penang will be implementing several Raw Water Contingency Plan 2030 (RWCP 2030) projects to ensure water supply security for the state.

Penang Water Supply Corporation (PBAPP) chief executive officer Datuk Jaseni Maidinsa said it is recommending that desalination works of seawater in Penang be initiated to meet future raw water supply demands beyond 2030.

He said in view of the latest Sungai Perak Raw Water Transfer Scheme (SPRWTS) project scenario, PBAPP is looking at commissioning desalination plants in Penang in phases beginning 2030.

"As an island state surrounded by sea, Penang may utilise desalination technology (like Singapore) to theoretically tap an unlimited amount of raw water for the future.

"It should be borne in mind that water supply is an essential public service that affects the daily lives of 1.776 million people in Penang, as well as the operations of thousands of businesses," he said today.

Jaseni said PBAPP has planned ahead to help Penang overcome potential scenarios such as the latest Sungai Perak Raw Water Transfer Scheme (SPRWTS) issue.

On March 1, Chief Minister Chow Kon Yeow met with Perak Menteri Besar Datuk Seri Saarani Mohamad to resume talks on Phase 1 of the SPRWTS project.

A day later, Saarani had said they could not supply raw water to Penang as they, too, were facing a shortage, particularly in northern Perak.

Jaseni said that in 2019, PBAPP had proposed the Penang Water Supply Initiative 2050 (PWSI 2050) to the state government as a water supply engineering roadmap to ensure water supply security for Penang until 2050.

He said the PWSI 2050 had been revised several times to address scenarios wherein SPRWTS would be further delayed and/or could not be implemented by 2030.

"In the face of these scenarios, PBAPP proposed the commissioning of desalination plants to meet Penang's projected raw water demand," he added.

Aside from the desalination, the five water supply engineering projects proposed include:

- * Phase 2, Sungai Dua Water Treatment Plant (WTP) sedimentation tanks upgrades;
- * Package 12A, Sungai Dua WTP: an additional new water treatment module;
- * Phase 1 Mengkuang Dam WTP;
- * Phase 1 Sungai Muda WTP; and
- * Sungai Prai Water Supply Scheme.

"In summary, PBAPP plans to complete two upgrading projects at Penang's award-winning Sungai Dua WTP, build two new water treatment plants near the Mengkuang Dam and Sungai Muda and start tapping Sungai Prai as an additional raw water resource for Penang.

"These five projects are the key components of PBAPP's RWCP 2030 and will yield 569 million litres per day (MLD), thus increasing the maximum design capacity from the current 1,599 MLD to 2,168 MLD.

"In 2021, Penang's water consumption was 860 MLD. Projections from an independent water study completed in 2021 indicated that Penang's water demand may be driven by socioeconomic factors to increase by 78.1 per cent (672 MLD) and reach 1,532 MLD by 2030.

"As such, it will help to ensure that Penang has a healthy 'reserve margin' and avoid a water crisis until 2030," he added.