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 Media Release

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2025 PENANG WATER SUPPLY ALERT: TELUK BAHANG DAM EFFECTIVE CAPACITY BELOW 50%

- **Air Itam Dam: 55.7% on 31.3.2025**
- **PBAPP seeks the understanding and cooperation of water consumers in the service areas of the dams to kindly use water wisely.**

PENANG, Wednesday, 2.4.2025: The effective capacities of the 2 dams on Penang Island have dropped significantly in the first quarter of 2025, primarily due to the lack of rainfall in the respective water catchment areas (WCAs) again.

The following table summarises the status of dams as at 31.3.2025:

Dam	Effective capacity 1.1.2025	Effective capacity 31.3.2025	Difference in effective capacity
Teluk Bahang Dam	61.7%	47.3%	- 14.4%
Air Itam Dam	76.7%	55.7%	- 21%

Meanwhile, the historical data of rainfall recorded in the respective dams' WCAs in the first quarter of a year is as follows:

Rainfall in WCA	2017 – 2019 3-year average	2020 – 2024 5-year average	2025
Teluk Bahang Dam	1,037mm	262mm	307mm
Air Itam Dam	553mm	185mm	122mm

Teluk Bahang Dam

In 2017, 2018 and 2019, the average benchmark (or “normal”) rainfall recorded in the Teluk Bahang Dam’s WCA during the first quarter of the year was 1,037mm. It dropped to an average of 262mm in the subsequent 5 years (2020 – 2024), trending with reported incidences of successive El Niño phenomena.

In 2025, PBAPP recorded a bit more rainfall in the Teluk Bahang Dam’s WCA but the rainfall trend has not normalised to pre-Covid-19 levels yet.

Moreover, at the beginning of this year, the Teluk Bahang Dam was not full. Its effective capacity was 61.7% on 1.1.2025.

PBAPP has been capping daily drawdowns from this 18,240 million litre (ML) dam at 60 million litres per day (MLD) since the beginning of the year. This is the main reason why its effective capacity has dropped by only 14.4% in the past 90 days, despite low rainfall in its WCA.

Air Itam Dam

Since 1.1.2025, the effective capacity of the 2,159 ML Air Itam Dam has dropped by about 21%. PBAPP has only recorded 122mm of rainfall in its WCA since 1.1.2025, the lowest measurement of rainfall in the Air Itam WCA in the past 8 years.

Nevertheless, PBAPP is “defending” this dam through the implementation of the Air Itam Dam Action Plan 2025 (AIDAP 2025):

- Limiting daily drawdowns to be between 11 MLD and 22 MLD;
- Pumping up to 33 MLD of treated water from the Sungai Dua WTP in Seberang Perai into the dam’s service area; and
- Optimising treated water production at the Air Itam Water Treatment Plant based primarily on raw water availability from 2 other water sources (Mains Stream and Tat’s Stream).

Expanded Mengkuang Dam (EMD)

Meanwhile, the effective capacity of the 86,400 ML Expanded Mengkuang Dam (EMD) in Seberang Perai Tengah remains “strong” at 92.4% on 31.3.2025.

Please note that the EMD is currently serving as a “stand-by” or “back-up” dam for treated water production at the Sungai Dua Water Treatment Plant (WTP). Unlike the Teluk Bahang Dam and Air Itam Dam which are “daily dams”, the EMD’s reserves are only drawn down when PBAPP is unable to abstract sufficient raw water from Sungai Muda.

Sungai Muda

PBAPP continued to abstract sufficient raw water from Sungai Muda in March 2025 to support optimal treated water production at the Sungai Dua WTP.

However, the Sungai Muda river level dipped below in “2.0m safe mark” at Penang’s Lahar Tiang Intake for 7 days in March 2025. As at 31.3.2025, the river level was reported to be 2.4m.

Cloud seeding

PBAPP will continue to monitor the statuses of the Teluk Bahang Dam and Air Itam Dam in April 2025 and further tighten daily drawdowns as far as possible without compromising on daily water supply services.

With support from the Penang State Government, we will seek assistance from National Disaster Management Agency (NADMA) and the Royal Malaysian Air Force (RMAF) to carry out cloud-seeding operations over the WCAs of the 2 island dams soon.

We hope that NADMA and the RMAF will respond before the Teluk Bahang Dam's effective capacity drops below the 40% mark. Moreover, it is now the inter-monsoon period when there are clouds in the sky to seed.

Use water wisely

The other important aspect in “defending” the remaining reserves of the Teluk Bahang Dam and Air Itam Dam is reduction of water consumption. There are a total of about 67,000 water consumers in the service areas of the 2 dams.

As such, PBAPP would also like to seek the kind support and cooperation from all water consumers in the following areas to use water wisely:

Teluk Bahang Dam service areas		Air Itam Dam service areas	
1.	Teluk Bahang	1.	Air Itam
2.	Batu Ferringhi	2.	Farlim
3.	Tanjung Bungah	3.	Paya Terubong
4.	Tanjong Tokong		

Please visit www.pba.com.my for useful water saving tips and use water wisely until there is sufficient rainfall to refill our dams.

Thank You.

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