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Media Release

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PENANG WATER SUPPLY ALERT: WATER CONSUMERS USING MORE WATER THAN RAINFALL IN AIR ITAM AND TELUK BAHANG

- **Dam levels are low, not only in Penang but in Kedah and Perak as well.**
- **Areas of concern: Air Itam, Farlim, Teluk Bahang, Batu Ferringhi, Tanjung Bungah and nearby areas.**
- **Water consumers should reduce consumption until heavy rainfall arrives.**

PENANG, Tuesday, 20.8.2024: The effective capacities of the Air Itam Dam and Teluk Bahang Dam are low in August 2024 primarily due to abnormally dry weather since the last quarter of 2023.

This phenomenon is not only affecting dams in Penang. It is also affecting key dams in the neighbouring states of Kedah and Perak that may only be refilled with rainfall, as shown in the table below:

Dam	State	Effective Capacity	Date
1. Air Itam	Penang	27.6%	19.8.2024
2. Teluk Bahang	Penang	25.2%	19.8.2024
3. Muda	Kedah	7.8%	19.8.2024
4. Beris	Kedah	53.9%	19.8.2024
5. Bukit Merah	Perak	33.0%	12.8.2024

Meanwhile, the effective capacity of the Expanded Mengkuang Dam (EMD) in Seberang Perai was 86.3% on 19.8.2024.

Kindly note that the EMD is refilled through a pumped storage scheme whereby water from Sungai Kulim is pumped into the dam during wet seasons. Therefore, the EMD is "less vulnerable" to extended dry weather conditions.

Penang water supply status

As at 19.8.2024, the Sungai Muda river level at Penang's Lahar Tiang Intake is 3.06m, which is more than 1.0m above the "2.0m safe level". PBAPP is abstracting raw water from this river daily for use at the Sungai Dua Water Treatment Plant (WTP) in Seberang Perai Utara (SPU).

The Sungai Dua WTP produces about 1,026 million litres per day (MLD) of treated water. Its service area includes the majority of areas in SPU, Seberang Perai Tengah (SPT) and Seberang Perai Selatan (SPS). The Sungai Dua WTP's service area also includes the highly populated areas in Daerah Barat Daya (DBD) and some areas in Daerah Timur Laut (DTL) on Penang Island, including the Bayan Lepas FTZ.

The total number of Penang consumers who are served by the Sungai Dua WTP is about 465,000 consumers, or about 66.7% of Penang's water consumers (as per June 2024 PBAPP data).

This means that there is no immediate threat to water supply services for about 66.7% of Penang's water consumers since the river level of Sungai Muda is relatively "healthy" for now.

The areas of concern are the water supply service areas of the Air Itam Dam and Teluk Bahang Dam.

The 2,159 million litre (ML) Air Itam Dam serves a customer base of about 28,948 water consumers in Air Itam, Farlim and nearby areas.

The 18,240 ML Teluk Bahang Dam serves a customer base of about 45,850 water consumers in Teluk Bahang, Batu Ferringhi, Tanjung Bungah and surrounding areas. Its effective capacity is about 8.45 times that of the Air Itam Dam.

The low effective capacities of the Air Itam Dam and Teluk Bahang Dam constitute a threat to water supply services for a total of about 74,798 water consumers in Air Itam, Farlim, Teluk Bahang, Batu Ferringhi, Tanjung Bungah and nearby areas.

PBAPP response

It should be noted that the Air Itam Dam (opened in 1963) and the Teluk Bahang Dam (opened in 1999) were designed and built to be refilled by wet season rainfall in their respective water catchment areas (WCAs). These 2 dams may not be refilled by any other means.

Bearing in mind this key specification, PBAPP is implementing the following mitigation measures to defend the remaining reserves of the dams:

1. The Air Itam Dam Action Plan 2024 (AIDAP 2024) by pumping up to 33 MLD of treated water into the Air Itam service area;
2. Carefully minimising drawdowns from the Air Itam Dam and Teluk Bahang Dam without inadvertently causing major water issues;

3. Tapping rainwater from two additional WCAs (the Batu Ferringhi WCA and the Sungai Pinang WCA) to refill the Teluk Bahang Dam whenever there is heavy rainfall;
4. Controlling pumps and valves in strategic areas to ensure water supply sufficiency during peak hours and minimise supply during off-peak hours; and
5. Working with the Penang State Government to request to the National Disaster Management Agency (NADMA) to conduct cloud seeding operations over the WCAs of the Air Itam Dam and Teluk Bahang Dam.

Public support and cooperation

PBAPP acknowledges that the “low levels” of the 2 dams on Penang Island are issues of concern. However, water consumers must also play positive and constructive roles daily to prevent a water shortage in Penang.

Under the present circumstances, PBAPP seeks the kind support and cooperation from water consumers to reduce daily water consumption. The 3 key actions to reduce water consumption are:

1. Wash your vehicles (cars or motorcycles) less often. Spraying water on your vehicle incurs high water consumption. If you must clean your vehicle, please use a sponge or a cloth with a bucket.
2. Do not use a hose to water your garden or plants. Please use watering cans instead. Moreover, since there has been sporadic incidences of rain in August 2024, please water your garden/plants less frequently.
3. Do not leave a tap running. A running tap may waste up to 20 litres of water per minute.

Please note that washing vehicles and watering gardens/plants constitute “non-essential consumption” of water. On the other hand, “essential consumption” encompasses using water for drinking, cooking, bathing, washing food items/kitchen utensils/clothes and flushing toilet systems.

On its part, PBAPP is playing its role to defend the Air Itam Dam and Teluk Bahang Dam to the best of its ability, and for as long as possible.

In the period from 1.8.2024 – 19.8.2024, PBAPP recorded some rainfall in the WCAs of the Air Itam Dam (91mm) and the Teluk Bahang Dam (164mm).



However, the effective capacities of these dams have not increased. This is due to the fact that PBAPP has had to draw down more water from these dams daily to meet water demand in Air Itam, Farlim, Teluk Bahang, Batu Ferringhi, Tanjung Bungah and nearby areas.

In other words, water consumers in these areas are presently consuming a higher volume of water than the volume of rainfall collected in these dams.

Volume of rainfall is an important factor for water supply sufficiency in Penang. On the other side of the equation, lower water consumption may be an equally important factor, especially when dam reserves are running low.

Please reduce water consumption until the forecasted rainfall arrives in September and the 4th quarter of 2024 to refill the Air Itam Dam and Teluk Bahang Dam to “safe levels”, hopefully by year’s end.

Thank You.

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