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Water level drop in Penang dams due to dry days, high consumption



The lack of rainfall at water catchment areas, coupled with high water consumption in Penang, has caused the Teluk Bahang dam, seen in this picture, and that of the Air Itam dam, to fall below their effective capacities. NSTP file pic

GEORGE TOWN: The Lack of rainfall, coupled with high water consumption among Penang users caused the the effective capacities of the Air Itam and Teluk Bahang dams to dip below the 30 per cent mark.

Consumers in Air Itam, Farlim, Teluk Bahang, Batu Ferringhi, Tanjung Bunga and nearby areas should note that the effective capacities of the dams that serve them are abnormally low this month.

As such, Penang Water Supply Corporation (PBAPP) chief executive officer Datuk K. Pathmanathan has urged consumers' cooperation in using less water until the wet season arrives next month.

"September is expected to bring significant rainfall to Penang. However, due to climate change, the volume of rainfall is uncertain," he said.

Pathmanathan said the Air Itam dam data showed that reductions in the dam's effective capacity had "slowed down" from an average of 0.82 per cent, or 17.61 million litres (ML) per day last month to 0.51 per cent (11ML) per day in the first 12 days of this month.

He said this was primarily due to rainfall in the Water Catchment Areas (WCAs) of the Air Itam dam.

"In the 31 days of last month, PBAPP recorded only 48mm of rainfall in the WCAs as compared to 36mm in the first 12 days of this month.

"Nevertheless, the additional rainfall is only 'slowing down' the drop in the effective capacity of the dam.

"The volume of rainfall recorded so far this month cannot increase the effective capacity of the Air Itam dam because PBAPP is drawing down an average of 22.16ML per day from the dam to meet water demands in Air Itam, Farlim and nearby areas," he added.

Elaborating, Pathmanathan said the effective capacity of the Teluk Bahang dam was 18,240ML or 8.45 times the effective capacity of the Air Itam dam.

He said data showed that reductions in the effective capacity of the Teluk Bahang dam had changed from an average of 0.31 per cent (or 57.10ML) per day last month to 0.27 per cent (48.33ML) per day this month.

He added that this was primarily due to rainfall in the Teluk Bahang dam's WCA.

"In the 31 days of last month, PBAPP recorded only 47mm of rainfall in its WCA as compared to 84mm in the first 12 days of August 2024.

"As in the case of the Air Itam dam, the additional rainfall in the first 12 days of this month was insufficient to increase the effective capacity of the Teluk Bahang dam.



"This is due to the fact that PBAPP is drawing down an average of 68.06ML per day from the Teluk Bahang Dam in August to meet water demand in Teluk Bahang, Batu Ferringhi, Tanjung Bungah and nearby areas," he said.

Pathmanathan said the two key factors that made a big difference included:

- * Rainfall The Air Itam and Teluk Bahang dams may only be refilled by rainfall in the respective WCAs. Every millimetre of rainfall recorded "prolongs" the dam reserves. Sustained heavy rainfall may increase effective capacity. Weather forecasts indicate that Penang may expect more incidences of significant rainfall in August and September as compared to previous months. However, we cannot be sure about the volume of actual rainfall; and
- * Water consumption The Air Itam and Teluk Bahang dams are "daily dams". Raw water is drawn from these dams daily to produce sufficient treated water to meet consumer demands. Theoretically, if water consumers reduce water usage by 10 per cent, the reserves of the dams may be extended by 10 per cent. If consumers reduce consumption by 20 per cent, then the remaining reserves may last 20 per cent longer.

"In view of the low effective capacities of the Air Itam and Teluk Bahang dams, PBAPP personnel are continuing to operate on a high alert basis round the clock.

"We will continue to monitor developments carefully and provide public updates until the

effective capacities of all Penang dams are normalised," said Pathmanathan.

It was reported yesterday that PBAPP was implementing phase one of its crisis management plan to ensure water supply sufficiency until next month

State Infrastructure Committee chairman Zairil Khir Johari had said PBAPP would optimise water production at the Batu Ferringgi Water Treatment Plant (WTP) and Guillemard WTP without overly compromising the effective capacity of Teluk Bahang dam to deliver as much treated water into service areas of the Waterfall and Sungai Pinang WTP.