

27.6.2023

Media Release 2:

PBA Holdings Bhd (PBAHB) 23rd Annual General Meeting.

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 CEO, PBAHB and PBAPP.

PBAPP IS GEARING UP TO SUPPLY MORE WATER IN PENANG THAN EVER BEFORE

- **High water demand and low rainfall are compelling PBAPP to expedite the planning and development of urgent water supply projects with a total investment value of RM1.1836 billion.**

PENANG, Tuesday, 27.6.2023: Penang’s water scenario in 2023 is compelling Perbadanan Bekalan Air Pulau Pinang Sdn Bhd (PBAPP) to focus on the implementation of projects with a total projected value of RM1.1836 billion.

Two factors of concern have surfaced in 2023:

1. High water demand, as related to the resurgence of all socioeconomic activities in the endemic phase of the Covid-19 pandemic, has driven water consumption to an average of 876 million litres per day (MLD) in the first quarter of 2023.
2. 50% - 60% less rainfall in Penang Island’s water catchment areas (WCAs), during the period from 1.1.2023 to 31.5.2023, have depleted the reserves of the Air Itam Dam and Teluk Bahang Dam in 2023.

As such, PBAPP must expedite the implementation of its 8 Water Contingency Plan 2030 (WCP 2030) projects:

Projects	Targeted completion	Projected investment (RM million)
1. Bukit Panchor DAF (dissolved air flotation) Water Treatment Plant (WTP).	2023	18.6
2. Package 12A, Sungai Dua WTP (additional water treatment module).	2023	31.0
3. 13.0km of 1,800mm pipelines from the Sungai Dua WTP to Butterworth in Seberang Perai.	2024	128.0
4. 3.9km of 1,800mm pipelines from the Macallum Area to the PBAPP Bukit Dumbar Reservoir and Pumping Station Complex on Penang Island.	2024	44.0

5.	Mengkuang Dam WTP	2025	120.0
6.	Sungai Kerian WTP	2027	171.0
7.	Sungai Perai Water Supply Scheme (including pre-treatment of raw water)	2028	500.0
8.	Sungai Muda WTP	2028	171.0
		Total	1,183.6

The key benefits of the WCP 2030 projects are:

- a. Upgrading PBAPP's water treatment and treated water distribution capacity by 602 million litres per day (MLD) to ensure continuous good water supply in all 5 districts in the State of Penang until 2030.
- b. Resolution of water supply issues in Seberang Perai Selatan (SPS) until 2030.
- c. Tapping of 3 alternative daily raw water resources the Expanded Mengkuang Dam (EMD), Sungai Perai and Sungai Kerian.
- d. "Buying time" for Penang until the implementation of the "Penang – Perak Water Project" before 2030.

Kindly note that PBAPP's WCP 2030 projects are not meant to replace Sungai Muda.

We still need to continue abstracting more than 1,000 MLD of raw water from Sungai Muda, Penang's primary raw water resource.

The WCP 2030 projects will specifically meet Penang's water demand until 2030, in support of the State Government's "Penang 2030" vision.

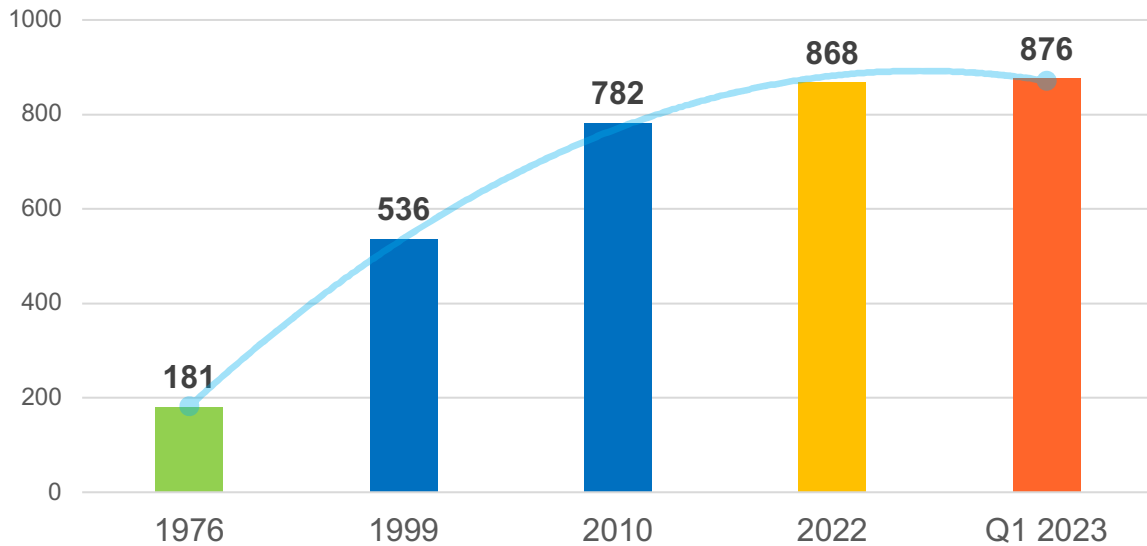
High Water Consumption

Since PBAPP's corporatisation in 1999, Penang's water consumption has increased by 61.9%, from 536 million litres per day (MLD) in 1999 to 868 MLD in 2022.

In the first quarter of 2023 (January – March 2023), consumption increased further to 876 MLD.

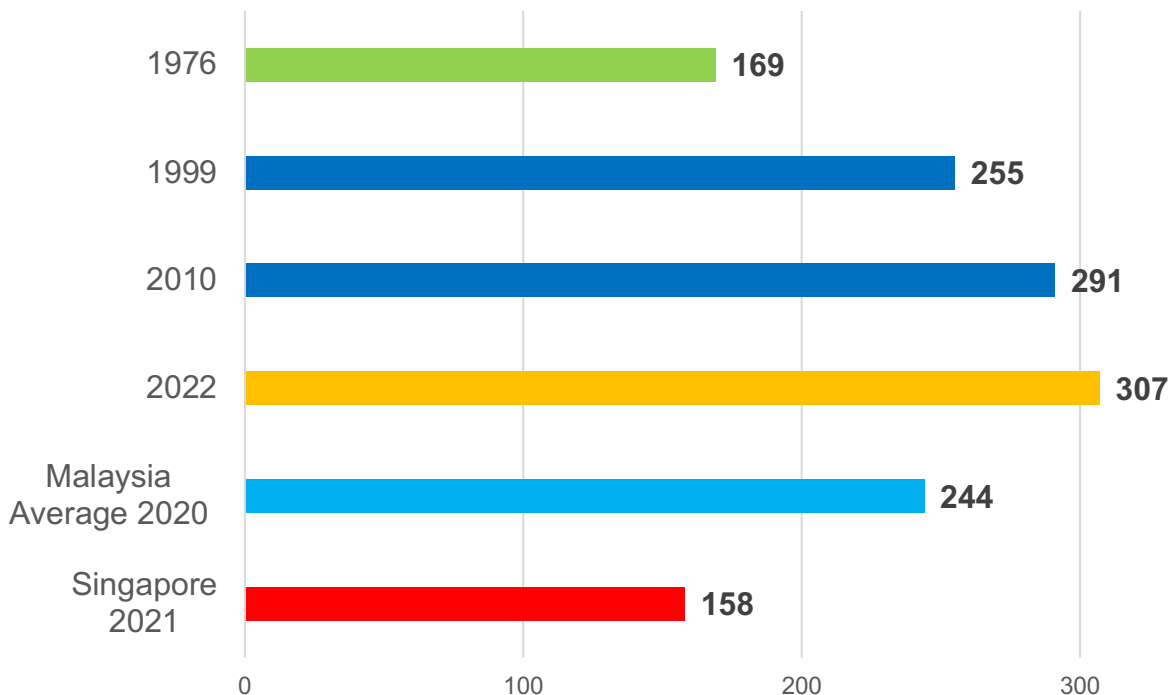
High water consumption in Penang is primarily driven by high domestic water consumption. In 2022, domestic consumption accounted for about 61.6% of total water consumption in Penang in 2022 (about 534 MLD of 868 MLD).

Total Water Consumption in Penang (million litres/day - MLD)



In terms of per capita domestic consumption, PBAPP data shows that there has also been an increase of 20.4% in 23 years, from 255 litres/capita/day (LCD) in 1999 to 307 LCD in 2022.

Penang: Per Capita Domestic Water Consumption (litres/capita/day - LCD)



Low Rainfall in Dam Water Catchment Areas

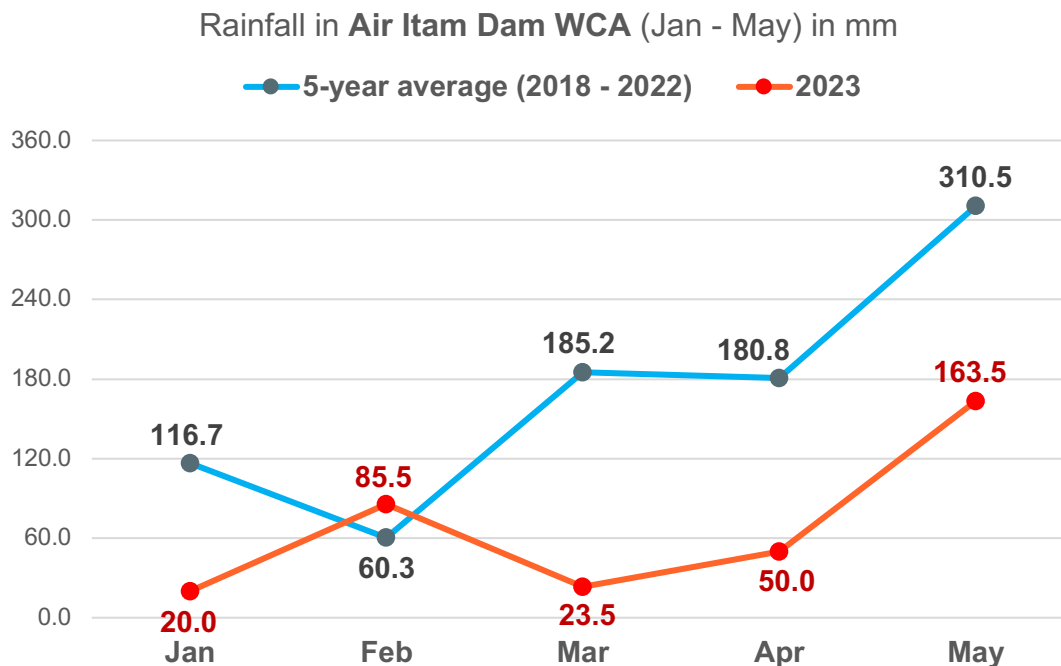
Meanwhile, the latest status of Penang's 3 major dams are as follows:

Dams		Effective Capacity 1.1.2023	Effective Capacity 24.6.2023
1.	Air Itam Dam	82.5	52.8%
2.	Teluk Bahang Dam	64.0	44.6%
3.	Expanded Mengkuang Dam (EMD)	87.7	88.7%

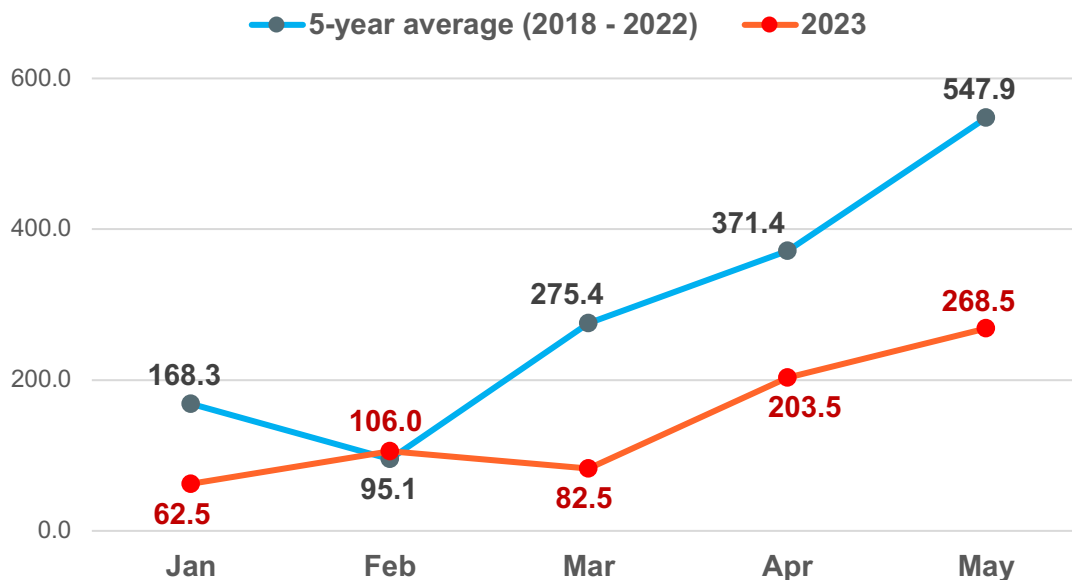
Please note that the Air Itam Dam and Teluk Bahang Dam are “daily dams”, from which raw water is drawn down daily to produce treated water at the Air Itam WTP, Batu Ferringhi WTP and Guillemard WTP. For now, the EMD is a “strategic drought dam” that stores water which is only drawn down for use at the Sungai Dua WTP when PBAPP cannot abstract sufficient raw water from Sungai Muda.

As shown in the table above, the effective capacities of the Air Itam Dam and the Teluk Bahang Dam were not 100% at the beginning of 2023, due to low rainfall in these dams' water catchment areas (WCAs) since 2022, as related to climate change.

In 2023, PBAPP continued to record abnormally low rainfall in the WCAs:



Rainfall in Teluk Bahang Dam WCA (Jan - May) in mm



In the first 5 months of this year, we recorded a total of 342.5mm of rainfall in the Air Itam Dam WCA. This volume of rainfall is **59.9% less than the 5-year average of 853.5mm.**

In the same period, we recorded a total of 723mm of rainfall in the Teluk Bahang Dam WCA. This volume of rainfall is **50.4% less than the 5-year average of 1458.1mm.**

Conclusion

In summary, **PBAPP is gearing up to supply more water than ever before in the history of Penang.**

As a responsible water supply operator, PBAPP does not plan for water rationing in Penang. Instead, we plan and implement projects to avoid water rationing, to the best of our ability.

However, there is a price to pay: A total investment of RM1.1836 billion for the WCP 2030 projects will have to be re-couped somehow; and it is likely to affect water tariffs in Penang in the future.

There is also a limit to what PBAPP can do: The incomplete Mengkuang Dam Expansion Project (MDEP) may only be completed by the Federal Government with the remaining allocations from the original RM1.2 billion Federal grant.

In view of the present water supply scenario in Penang, **water consumers also have an important role to play.** They should kindly heed the call to “save water” made by Penang Chief Minister YAB Tuan Chow Kon Yeow during World Water Day at the Air Itam Dam on 21.5.2023.

Please reduce domestic water consumption in Penang by 20% to make sure that we do not run out of water before the rainy season arrives in September.

For water saving tips, please visit: www.pba.com.my

Thank You.

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