

## LETTER | **The clock is ticking for Penang's water supply**

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LETTER | The “sharing of water” between Malaysian states may start with the federal government implementing the Sungai Perak Raw Water Transfer Scheme (SPRWTS) for Penang and Perak.

Penang and Perbadanan Bekalan Air Pulau Pinang Sdn Bhd (PBAPP) are fully supportive of the Environment and Water Ministry’s (Kasa’s) plan for states with excess water to share water with states facing water shortages.

This is not a new approach, as large-scale raw water transfer schemes such as the Johor-Melaka and Pahang-Selangor schemes are already operational.

However, we will welcome Kasa’s intervention to expedite the SPRWTS.

In 2011, Penang and PBAPP proposed the SPRWTS as a raw water solution for Penang and Perak until 2050. Until now, the scheme has not been implemented.

When Penang migrated to the National Water Services Re-structuring Initiative (NWSRI) in 2011, the federal government agreed to assume responsibility for raw water resource schemes for Penang.

Penang is willing to buy “raw water” from Perak, via the SPRWTS. However, as of February, Perak was still insistent on selling “treated water” to Penang.

Unfortunately, Perak's intent to sell "treated water" is not in line with the rationality of the SPRWTS, which is proposed as a "raw water" solution.

All major inter-state water transfer projects are "raw water" schemes (as in the cases of the Johor-Melaka and Pahang-Selangor schemes) and not "treated water" schemes, for the following good reasons:

1. Conceptually and operations-wise, raw water transfer schemes are simple and proven solutions. The benefactor state simply pumps raw water to the recipient state. The recipient state pays for the raw water and then assumes responsibility for treating the water for its own use.

As proposed in the SPRWTS, Penang is ready to pay Perak for raw water from Sungai Perak (photo, above). PBAPP will then build new water treatment plants to treat the raw water in Penang.

2. The SPRWTS is to be a long-term solution that will serve Penang and Perak until 2050. The projected yield of the SPRWTS is 1,000 million litres per day (MLD) for Penang and 1,000 MLD for north Perak by 2050.

A raw water transfer scheme allows Penang and Perak to independently develop water treatment facilities in each state to treat raw water from Sungai Perak, based on specific water demand.

For example, PBAPP plans to develop new SPRWTS water treatment plants (WTPs) in Penang in four distinct phases, based on water demand projections towards 2050. The first phase, to treat 250MLD, is to be commissioned by 2025, with the remaining three phases (also delivering 250MLD each) scheduled for commissioning in 2030, 2040 and 2050.

Phased development of WTPs over a 25-year period will "dilute development costs". Accordingly, PBAPP's four-phase SPRWTS WTP development programme will help to "moderate water tariff reviews" in Penang over a period of time, until 2050.

3. Perak has counter-proposed for Penang to jointly invest in a co-owned and jointly managed new WTP in Perak that will exclusively treat raw water from Sungai Perak for use in north Perak and Penang. This proposed WTP will be a massive facility because it has to treat sufficient water for two states at one go.

It should be noted Lembaga Air Perak (LAP) and PBAPP are two individual water supply operators serving two different states. Perak's counter-proposal will compel LAP and PBAPP to co-manage one water treatment plant in Perak. This is an unprecedented approach in Malaysia. It may cause unnecessary issues and problems, arising from the differing water supply policies, priorities and water demand in Perak and Penang.

As such, PBAPP will not be able to operate water treatment works in a manner that specifically addresses water needs in Penang, which differs from LAP's and the water needs of northern Perak.

On the other hand, the SPRWTS is a "raw water" solution that will allow LAP and PBAPP to continue operating individually, as per the status quo, in meeting specific water needs in Perak and Penang towards 2050.

4. The engineering works, development timeline, projected yield and ballpark costs for the SPRWTS have been mapped out clearly. To date, no such details have been specified or presented for Perak's counter-proposal.

5. In terms of risk management, operating independent WTPs in Perak and Penang to treat raw water from Sungai Perak is better than running only one huge WTP to treat water for both states. It reduces the risk of water crises occurring in both states if there is one mishap in that one proposed WTP in Perak. It is not recommended to “put all your eggs in one basket”, as the saying goes.

As it stands, the SPRWTS is a critical raw water supply solution for Penang’s future. The “Master Plan Study for Potable Water Supply in Penang until 2050” has projected that Sungai Muda may reliably serve as Penang’s one and only primary raw water resource only until 2025.

This means that the clock is ticking for Penang. By 2025, Penang is likely to face a high risk of a water supply crisis unless it taps a second major raw water resource.

As of 2020, excess raw water from Sungai Perak is flowing into the sea. This excess raw water may be pumped and sold to Penang for a fair price. Moreover, the timely implementation of the SPRWTS will also benefit Perak in another way - by ensuring water supply security in North Perak until 2050.

In the case of the SPRWTS:

- The raw water resource (Sungai Perak) has been identified and verified to be a relatively under-utilised resource for water supply.
- On behalf of Penang, PBAPP has drafted out the SPRWTS “blueprint” and shared it with Perak and the federal government.
- In 2019 and early 2020, the previous federal government had received engineering and financial proposals from private sector companies which were interested to undertake the SPRWTS.

All we ask is for the ministry to take the lead and expedite the SPRWTS as a raw water solution for the mutual benefit of both Perak and Penang.

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