

PRESS RELEASE

DATE: 13th JANUARY 2012 (FRIDAY)

WATER CRISIS MAY HIT SELANGOR BEFORE YEAR 2014

Association of Water and Energy Research Malaysia (AWER) has conducted a linear modeling with 1% treated water reserve margin in Selangor (including Kuala Lumpur and Putrajaya). Reserve margin means additional water treatment capacity available compared to current demand. This will allow the treatment plant to cater any sudden demand increase or unforeseen water shortage. Our study result concludes that year 2014 will be the “suitable candidate” for water crisis in Selangor, if the demand increase is anything between 2.0 % and 2.5%. If the annual demand increases higher, the crisis might hit Klang Valley earlier. Besides this, the average annual treated water production increase between year 2007 and 2010 is 2.14 %. (Please refer to Table 1 and 2 for more information.)

Table 1: Increase in Production of Treated Water in Selangor (including Kuala Lumpur and Putrajaya)

Year	Total Production (MLD)*	Increase in Production (%)**
2010	4063	3.49
2009	3926	0.95
2008	3889	1.97
2007	3814	-

(MLD = Million Litres per day)

*Source: Malaysia Water Industry Guide 2011

** derived by AWER

Table 2: Results of Linear Demand Study by AWER

Estimated Annual Demand increase (%)	Estimated Water Crisis Year
0.50	2026
1.00	2018
1.50	2016
2.00	2014
2.14	2014
2.50	2014
3.00	2013

Input (2010 Production): 4063 Million Litres per Day (MLD)

Limitation (Distributable Production Capacity): 4431 MLD

Worst case scenario with 1 % reserve margin: 4387 MLD

Unlike electricity industry, higher reserve margin is a good indicator for water services industry. Low reserve margin will end up making any drought season or unforeseen raw water problems to cause immediate stress to water supply system which may eventually lead to water crisis.

The Pahang-Selangor Raw Water Transfer project and the Langat 2 Water Treatment plant must go forward. Last year, we have requested the Ministry of Energy, Green Technology and Water (KeTTHA) to do a detailed modelling of directly affected zones in Klang Valley if a water crisis happens. The current statistics used by all parties are averaged out and might not reflect the actual seriousness in certain highly populated zones. Each supply zone's demand modeling and worst case scenario must be studied. This will give a clear indication of the criticality of water crisis.

Example of water supply insecurity can be seen during the last shut down of Semenyih Plant due to raw water pollution. When the supply was resumed, it had to cater daily demand, storage tanks, services reservoir and the leakages in the system as well. It took between 3 days to a week to fully stabilise the entire water supply system. Similar situation was also observed in Penang during their plant maintenance in late year 2010. These are clear indication of water supply insecurity and water crisis is just around the corner.

The current situation is made worst by delay in water restructuring for Selangor. The restructuring has been "hibernating" since year 2008. Both the state government and federal government must work together to ensure water concessionaires are regulated and licensed fully under Water Services Industry Act 2006 (WSIA) for the well being of the rakyat. We only can have a better water services industry through WSIA model.

The Selangor government has also suggested to construct more groundwater extraction plants to cater the deficit in raw water, which also means that they acknowledge that there is risk of water crisis. When the cost of constructing many small scale groundwater treatment plants is compared with the construction of Langat 2 treatment plant, Langat 2 treatment plant is definitely much more cost effective and reliable. Groundwater extractions also come with many other environmental impacts such as land subsidence, hydraulic cracks, drop of water tables and instability of ecosystem, etc.

Furthermore, groundwater solution might not work during water crisis. For example, during the water crisis in Labuan, groundwater solution is implemented and unfortunately it was a failure. The similar trend was also noticed during a bad drought in Kelantan. It takes rain to fill up groundwater; we call this recharge process in engineering. This is the basics of water cycle in tropical rainforest climate.

In this chicken and egg situation, AWER requests both the federal government and state government to put aside their differences and work towards preventing this water crisis. **If there is crisis, who wants to take money from their OWN pocket and pay compensation to the rakyat and businesses? Definitely nobody will do so.** Delay in constructing the Langat 2 treatment plant will only escalate the cost and this cost of delay will be passed through tariff eventually. This is unfair to the rakyat and businesses.

As a long term solution, we will need 'Water Grid' (similar to electricity grid) to fight water crisis. Water Grid needs a capable, professional, efficient and effective water industry to manage it. But for now, AWER would like to advice both KeTTHA and Selangor Government to allow Langat 2 treatment plant construction to move forward transparently and prevent water crisis in Klang Valley via WSIA model. **There must not be concession agreement anymore.**

Stop politicising water, it is disgusting. WATER IS LIFE!

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President

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