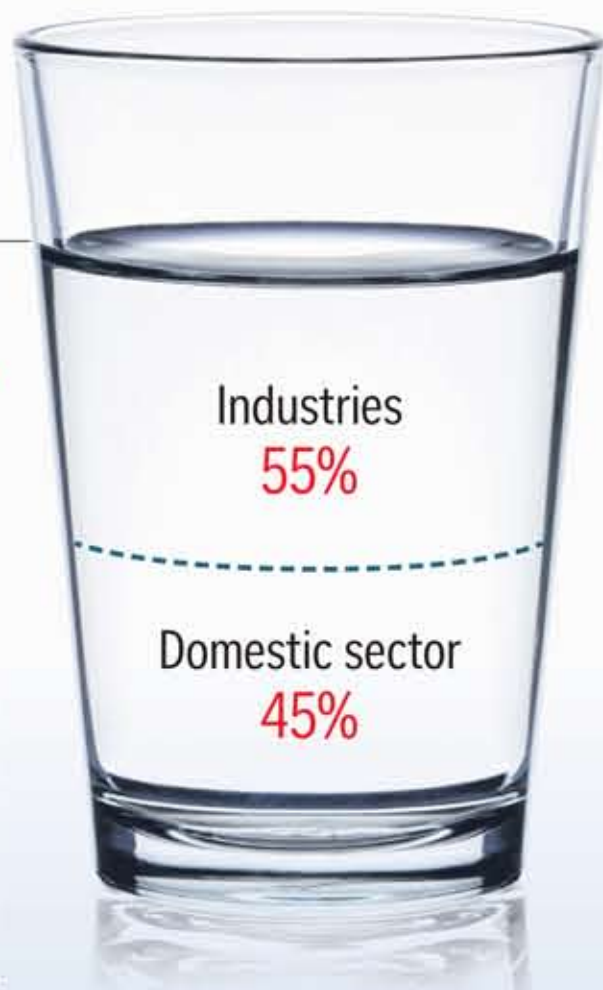


# How Singapore keeps its taps flowing

Singapore uses **430 million gallons** of water a day



The Sunday Times explains the "four national taps" that diversify Singapore's water sources: local catchment, imported water from Malaysia, Newater and desalination.

## 4 NATIONAL TAPS

### 1. LOCAL CATCHMENT

- Rain that falls on two-thirds of Singapore's land mass is channelled to its reservoirs.
- Water quality is monitored by PUB and the National Environment Agency to control pollution and algae growth.
- Singapore's catchments also serve as test beds for floating solar panels, to make up for a lack of land for sprawling solar farms. The floating solar panel test bed at Tengeh Reservoir is the world's largest.
- Beginning with MacRitchie Reservoir, which was completed in the 1860s, **17 reservoirs** now dot the country.

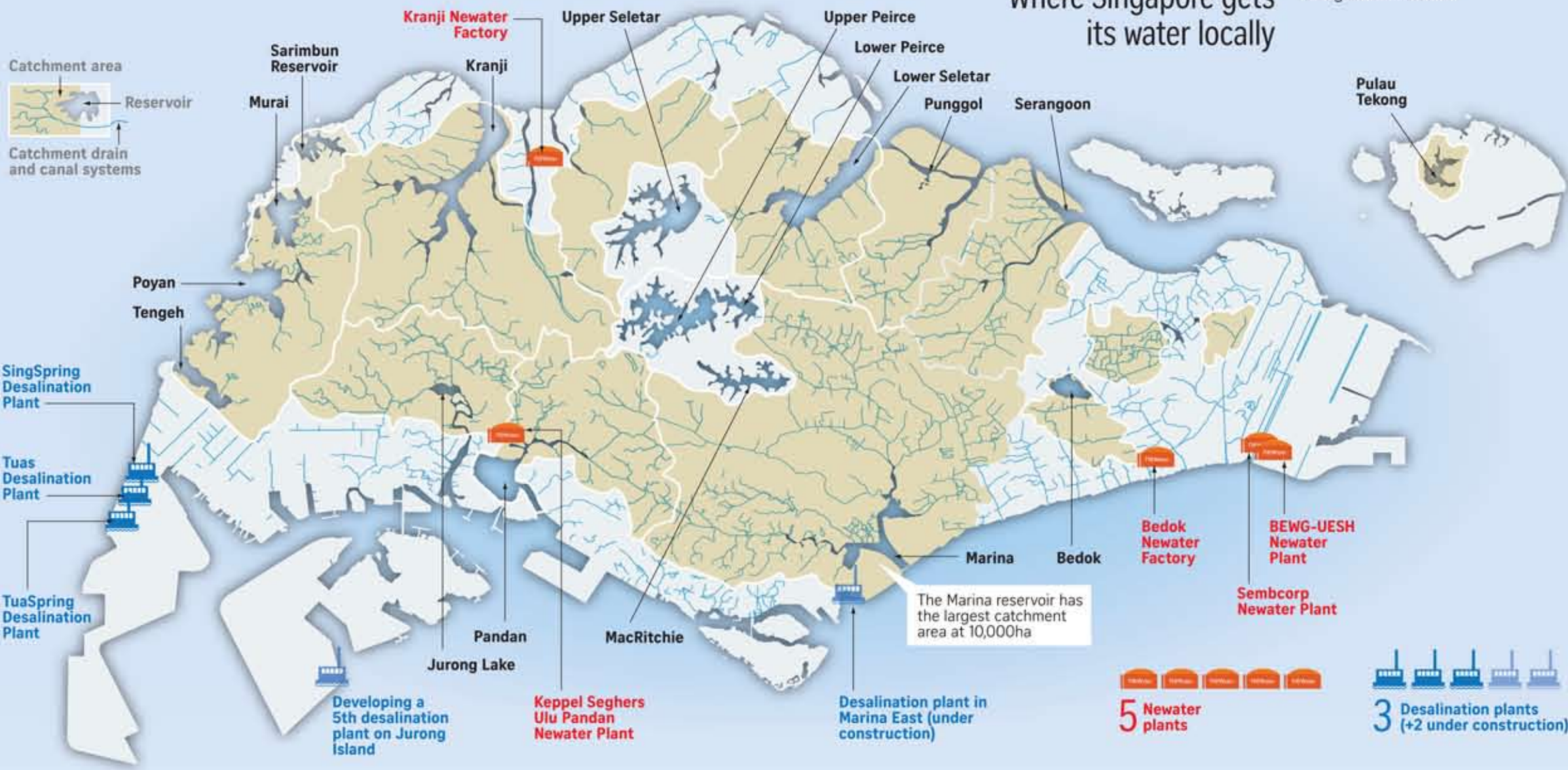
Text: JOSE HONG  
PHOTOS: SHIN MIN DAILY NEWS, STRAITS TIMES FILE PHOTOS, LIANHE ZAOBAO, ISTOCKPHOTOS  
STRAITS TIMES GRAPHICS



### 2. IMPORTED FROM MALAYSIA

- Singapore can draw up to **250 million gallons** of water a day from the Johor River under the 1962 Water Agreement.
- Around half of Singapore's water comes from this imported water, and PUB built the \$317 million Linggiu Reservoir in Johor in 1994 to help ensure the reliability of the water supply.
- The price at which raw water is sold to Singapore has caused bilateral tensions, especially during the latter half of Malaysian Prime Minister Mahathir Mohamad's previous leadership between 1981 and 2003.
- Tun Dr Mahathir recently revived the issue, saying that the price was "ridiculous" and that Malaysia would approach Singapore to renegotiate the deal.

### Where Singapore gets its water locally



### 3. NEWATER PLANTS

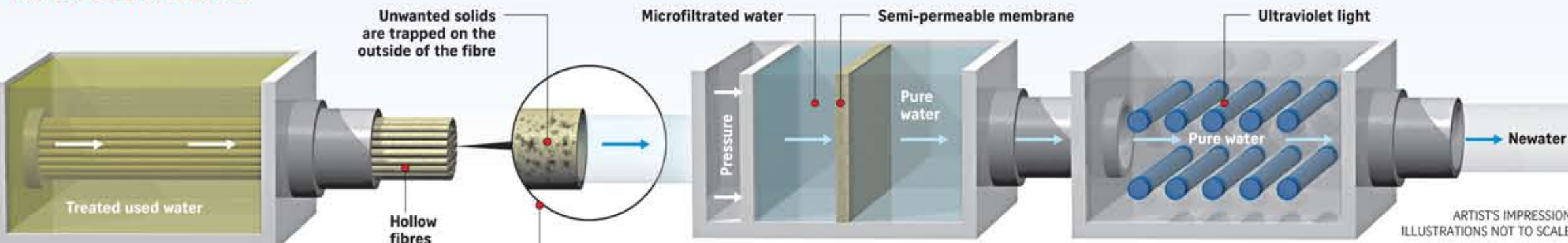
- There are five Newater plants in Singapore that can produce up to **40 per cent** of Singapore's current demand.
- Newater is used mainly for industrial purposes, but is also blended with raw water in reservoirs during dry periods.
- By 2060, Newater is expected to contribute **55 per cent** of Singapore's water demand.
- Newater is drinking water made by purifying sewage. It is produced through a process using membranes to extract pure water from used water.

Here's how it works:



### 4. DESALINATION PLANTS

- Desalination turns sea water into drinking water through reverse osmosis.
- With the official opening of the **\$217 million** Tuas Desalination Plant last month, Singapore now has three desalination facilities that can meet **30 per cent** of its water needs.
- Even as water demand doubles to 860 million gallons a day in 2060, the construction of more plants will ensure that desalination can still meet 30 per cent of the country's needs.



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