Ministry of Sustainability and the Environment
SINGAPORE

PUB SINGAPORE'S NATIONAL WATER AGENCY

MEDIA FACTSHEET

TO BE REPORTED ONLY IF CONTENT IS DELIVERED AT COS 2023 DEBATE AND TO BE EMBARGOED UNTIL AFTER DELIVERY

REDEVELOPMENT OF KRANJI WATER RECLAMATION PLANT AND NEWATER FACTORY

Singapore consumes about 440 million gallons of water per day (mgd), and this will almost double by 2065. With upcoming major residential and industrial developments in the north such as Tengah New Town and Sungei Kadut Eco-District, the amount of used water to be collected and treated will increase significantly.

2 The existing Kranji Water Reclamation Plant (WRP) was constructed in the 1980s. It serves developments in northern Singapore, including Woodlands, Sungei Kadut and Choa Chu Kang. Kranji WRP treats used water for further reclamation at the co-located Kranji NEWater Factory to produce NEWater or for discharge to the sea. NEWater, an ultra-clean and high-grade water, is Singapore's third National Tap and a key pillar of our water sustainability strategy. Refer to the **Annex** for an image of the existing WRP and NEWater factory.

Redevelopment of Kranji WRP and Kranji NEWater Factory

3 To meet the projected increase in used water, PUB will be redeveloping Kranji WRP and Kranji NEWater Factory. The treatment capacities for these key infrastructure will be increased and they are expected to be ready around 2035. Together, they will bolster NEWater production to augment water supply and strengthen Singapore's water resilience against growing water demand and the impact of climate change.

4 The new Kranji WRP will adopt advanced technologies including Membrane Bio-Reactor (MBR)[1] and Thermal Hydrolysis Process (THP)[2] to achieve better treatment and land-use efficiencies. MBR technology uses a smaller footprint than conventional treatment, while producing a higher quality effluent that can shortcut the existing NEWater treatment process.

Sustainable Development

5 PUB strives to develop our infrastructure in an environmentally sustainable manner. From the early planning and design stages of the project, we will make a concerted effort to minimise any impact to biodiversity and the environment. PUB will work closely with the relevant

[1] MBR is a 3-in-1 solution that combines conventional bioreactors, secondary sedimentation tanks and microfiltration/ ultrafiltration into one single step.
[2] THP enhances sludge management for disposal and increases the biogas production for energy recovery.

government agencies to carry out environmental impact assessments and engage stakeholders, such as nature and heritage groups, throughout the project to ensure the development is carried out sustainably.

Deep Tunnel Sewerage System

6 The new Kranji WRP will be connected to the Deep Tunnel Sewerage System (DTSS) and completes the three-node DTSS system for water reclamation, with Changi WRP in the East and Tuas WRP in the West. All three WRPs will be co-located with NEWater factories.

7 A superhighway for used water management, DTSS is a critical infrastructure to meet Singapore's long-term needs for used water collection, treatment, reclamation and disposal. Phase 1 of the DTSS system was completed in 2008 and conveys used water from the eastern part of Singapore to Changi WRP. We are making good progress on DTSS Phase 2 which will serve the western part of Singapore. Tunnelling works are expected to be completed by second half of 2023.

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ANNEX

Existing Kranji Water Reclamation Plant and co-located NEWater Factory

Existing Kranji Water Reclamation Plant and co-located NEWater Factory