

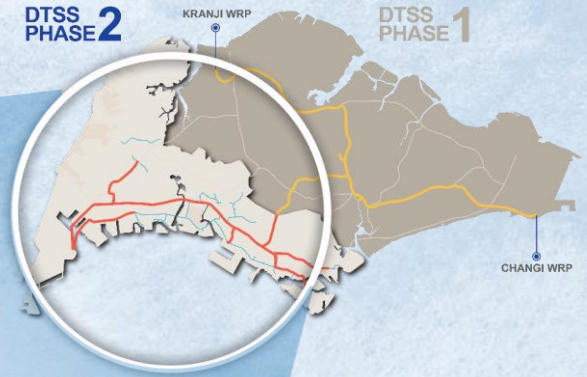
DTSS 2 TODAY

Issue: May 2019

DTSS PHASE 2

A super highway for used water management, the Deep Tunnel Sewerage System (DTSS) is a core water infrastructure which provides a cost-effective and sustainable solution to support Singapore's long-term needs for used water collection and reclamation for reuse.

DTSS Phase 1, spanning the eastern part of Singapore, was completed in 2008. DTSS Phase 2, when completed in 2025, will extend the DTSS to the western part of Singapore, culminating at Tuas Water Reclamation Plant (Tuas WRP). The Tuas WRP will utilise advanced technologies and innovative designs to achieve enhanced energy and water recovery from used water.



Launch of First TBM
TBM Bahar



Tuas WRP
(part of Tuas Nexus)

50 km
Link sewers constructed
By pipe jacking machines

50 km
Tunnels constructed
by Tunnel Boring
Machines (TBMs)



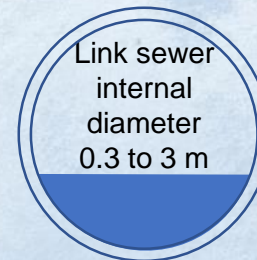
32.4%
Overall
Progress



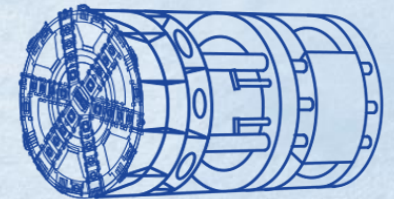
7.6 million
Total Manhours
worked



Domestic Used Water
650,000 m³/day
Industrial Used Water
150,000 m³/day



Link sewer
internal
diameter
0.3 to 3 m



Tunnel internal
diameter:
3 to 6 m

LAUNCH OF FIRST TBM

TBM Bahar

Slurry type
Cutterhead diameter
4.87 m
TBM Weight
676 t

The first tunnel boring machine, TBM Bahar officially launched by Mr Masagos Zulkifli, Minister for the Environment and Water Resources on 4 April 2019.

2.8-km drive along PIE from junction of Jalan Bahar to Nanyang Drive.

Muhd Syukri Fadhlullah
Engineer
DTSS 2, PUB

Chua Wei Rong
Senior Engineer
DTSS 2, PUB

Darryl Tan
Senior Engineer
DTSS 2, PUB

Loh Siew Hui
Senior Engineer
DTSS 2, PUB

Woo Lai Lynn
Chief Engineer (Conveyance)
DTSS 2, PUB

PUB's project team standing in front of TBM Bahar

CONVEYANCE



4.66 million
Manhours worked

Link Sewer Contracts

13 Contractors



4/13
Contracts
Awarded



2.25%
Construction
Progress

Tunnel Contracts

5 Design & Build Contractors



18.5%
Construction
Progress

2/50
Shafts
Completed

Depths
From 35 to 55 m



TBM Types
18 slurry & 1 earth
pressure balanced

2/19
TBMs
Delivered

TUAS WRP

Contract 1A

Site Development Works

McConnell Dowell is currently working on the grounds, preparing the site setup which includes overall site earthworks, setting up of the site office and temporary utilities.

Contract 3A

Industrial Liquids Modules and NEWater Plant

Tender has been published in GeBIZ.

Contract 3C

Domestic Liquids Modules and NEWater Plant

Pre-tender qualification evaluation is in progress.

Contract 2A

Influent Pumping Stations

Tender evaluation is in progress.

681,000

Manhours worked

2.8%

Construction Progress

Brought to you by:



Consultants



Link Sewers



Eng Lam Contractors
Co (Pte) Ltd



Sweet Hong Limited



Ed. Züblin AG,
Singapore Branch

Tunnels



Leighton
Contractor
(Asia) Limited
(Singapore
Branch)



Nishimatsu Construction
Co., Ltd.



Penta-Ocean and Koh
Brothers Joint Venture



Shanghai
Tunnel
Engineering Co
(Singapore)
Pte Ltd



Ed. Züblin AG,
Singapore Branch

Tuas WRP



CREATIVE CONSTRUCTION™
McConnell Dowell South
East Asia Pte Ltd