

## Project Profile DTSS2 - Singapore

Maxwell GeoSystems' *Shaft & Tunnel Monitoring System (STEMS)* continues to provide a platform of valuable information on the Public Utilities Board (Singapore's National Water Agency) DTSS2 Project.



Image Courtesy of PUB - Maxwell GeoSystems

Construction of the Deep Tunnel Sewerage System Phase 2 (DTSS2 Project) of the Public Utilities Board PUB (Singapore's National Water Agency) commenced in the fourth (4th) Quarter of 2017 and is an on-going construction.

DTSS2 will eventually construct about 60 kms of link sewers and 40 kms of deep tunnels in the Southwestern part of Singapore as well as the Tuas Water Reclamation Plant (TWRP) in deep retained excavation.

The DTSS Phase 2 extends the existing deep tunnel system (DTSS1) to cover the Western part of Singapore, including the downtown area and major upcoming developments.

A new water factory to be integrated with the TWRP will be built to facilitate water recycling, contributing to the goal of increasing the overall water recycling rate from 30% to up to 55% of total water demand.

It has been about 1.5 years since the commissioning of Maxwell GeoSystems' *Shaft & Tunnel Monitoring System (STEMS)* for the DTSS Phase 2.

Throughout that time, the client has utilised the scope and capabilities of Maxwell GeoSystems' *STEMS* as a platform of centralized source of information for instrumentation and construction data all across the project.

The system has been extremely successful in acting as an efficient source of information for the construction progress and the immediate effect of the works to surrounding instrumentation, simultaneously, highlighting & addressing risk issues before they even start.

The client, PUB, has found the following key areas of *STEMS* functionality of particular benefit:

- 1 - Management Information
- 2 - Project Management
- 3 - Integrated Monitoring
- 4 - Reporting



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Sector	Tunnelling	Location	Singapore
Client	Public Utilities Board-SGP	Budget	USD\$ 4.9 Billion
Technical Summary	Instruments	37,410	
	TBM Drives	19	(Real Time Data Feeds)
	Shafts	52	
	Instrument Records	26 Million	
	Users -	300	
Status - Tunnelling Underway - Ongoing			

